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XLIII

EXTENSION OF BANK CREDIT
WITH SPECIAL REFERENCE TO TEXAS

EXTENSION OF BANK CREDIT

A STUDY IN THE PRINCIPLES OF
FINANCIAL STATEMENT ANALYSIS AS
APPLIED IN EXTENDING BANK CREDIT TO
AGRICULTURE, INDUSTRY,
AND TRADE IN TEXAS

BY

EARL BRYAN SCHWULST



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PREFACE

THIS series of books owes its existence to the generosity of Messrs. Hart, Schaffner & Marx, of Chicago, who have shown a special interest in trying to draw the attention of American youth to the study of economic and commercial subjects. For this purpose they have delegated to the undersigned committee the task of selecting or approving of topics, making announcements, and awarding prizes annually for those who wish to compete.

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AUTHOR'S PREFACE

THE writer desires to state that he is very deeply indebted to Mr. John Cummings and certain of his colleagues in the Department of Research and Statistics of the Federal Reserve Board for very helpful suggestions in the preparation of this study for publication. The writer is deeply indebted also to many business men and bankers in Texas who have taken the time to give him a large part of the information appearing in this book. Finally, he is indebted to his wife, whose assistance in the preparation of the manuscript has been of great value.

While many of the principles discussed in this study are as applicable in one part of the country as in another, the writer has drawn mainly upon his Texas experience for the materials out of which the study is made up. In fact, the study is written from the point of view of a city banker interested in extending credit to business enterprises or banks located in Texas.

SCOPE OF THE INQUIRY

THE city banker who is called upon to extend credit to business enterprises and country banks in Texas should have a good general knowledge of the following principles, economic conditions, and trade practices, which as briefly summarized indicate the scope of the present inquiry.

(a) *Principles of financial-statement analysis* as applied both to commercial statements and to statements of farmers and stockmen.

(b) *The economic position of the two elemental industries of the state — the farming and live stock industries.* They are the general foundation upon which the material well-being of the state is based. It may seem that in discussing the farmer and the problems, both economic and sociological, with which he is confronted, the writer is wandering somewhat far afield. It is his contention, however, that no city banker can extend bank credit in Texas with intelligence unless he is at least fairly well grounded in the knowledge of its basic industries.

(c) *Trade practices and characteristics of important lines of business in the state.* The banker comes directly in contact with these lines of business. As regards almost any two of them the trade practices and characteristics, such as terms of sale and seasons of activity, may differ widely. Consequently a banker must be familiar with the peculiarities of each line of business because his knowledge of one line will not be a safe guide for him to follow in his dealings with another. That knowledge may even mislead him; for example, an understanding of the trade practices of the retail furniture trade would be of little, if any, value to the banker in his attempt to analyze the financial statement of a cottonseed oil mill.

Part Three of the present inquiry is given over to a dis-

cussion of important lines of business, and the information contained therein has been gathered as the fruit of an original investigation made by the writer extending over a period of about three years. This discussion is based largely upon personal interviews with managing officers of the lines of business involved and the data have been checked in order that the discussion may be as accurate and representative as possible. The writer would emphasize very strongly that the reader should consider Appendix V concurrently with his reading of Part Three, inasmuch as that appendix contains a large amount of illustrative material — actual cases which illustrate the importance, to an accurate and intelligent analysis of financial statements, of a knowledge of the trade practices and characteristics discussed in Part Three.

(d) *The principles of extending credit to the Texas country bank.* This part of the study is based very largely upon the writer's own experience, his principal duties for some time having been the preparation and analysis of data relating to country bank applicants for credit.

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EXTENSION OF BANK CREDIT



PART ONE

PRINCIPLES OF FINANCIAL-STATEMENT ANALYSIS

EXTENSION OF BANK CREDIT



CHAPTER I

AN OUTLINE OF THE PRINCIPLES OF FINANCIAL- STATEMENT ANALYSIS

IN this and the following chapter will be discussed the more important principles involved in the analysis of financial statements of commercial and industrial enterprises and of farmers and live stock men. It is true that the city banker is primarily interested in his commercial and industrial customers, since they make up his most important class of borrowers, but it is not uncommon for the city banker in Texas to have a number of substantial farmers and live stock men among his borrowing customers. This fact, together with the fact that most, if not all, of his country bank borrowers make practically all of their loans to farmers and live stock men, should impress him with the importance of such knowledge as will enable him to read their statements intelligently. It has been thought best not to consider in these chapters the analysis of a bank's financial statement, but to reserve that for later treatment, since the bank statement is fundamentally different from the ordinary financial statement.

A. GENERAL CONSIDERATIONS

The financial statement is one of the chief resources upon which the banker relies in dealing with a borrowing customer on an unsecured basis, and we shall be primarily concerned in this study with the extension of unsecured

credit. Important as the financial statement may be, however, there is one thing that should be particularly emphasized from the beginning: the banker must be satisfied that the moral risk of his customer is good, before he even considers the statement. Obviously a statement has value for credit purposes only in proportion to the confidence which the banker has in the truthfulness and honesty of the borrower who has rendered it. Therefore, if the moral risk is unsatisfactory, the statement can have no value whatever, since there is no assurance that it tells the truth.

Assuming, then, that the moral risk of the borrower is not questionable and that his statement is a reasonable estimate of his financial condition, the banker should not on this showing alone rest his case and decide to accept or reject the application for a loan forthwith. The bare figures on the statement may appear to be in proper proportion, one to the other, and the current ratio and all the other ratios may appear to be satisfactory, so that, on the basis of the analysis of the statement alone, the credit risk may appear to be acceptable. *The banker should remember, however, that there is no magic in figures or ratios* — especially when considered by themselves. They take on meaning and value only when considered in the light of other information. In the first place, the banker must be familiar with conditions in the particular line of business represented by the borrower. If the prospects are bright, the borrower's statement will mean one thing; if they are dark, it may mean decidedly another thing. Until quite recently the farm implement business, for example, has been laboring under the handicap of poor collections, inadequate demand for its product, and generally depressed conditions throughout the trade. The good crops of 1923, however, and the satisfactory prices received for them by the farmers put new life into the business by creating a more active demand and making possible the collection of accounts, which in some cases had reached the doubtful stage, and which, had there been a crop failure, would no doubt have caused serious

embarrassment to some houses. It is obvious that a farm implement dealer, all other things being equal, would have been a less desirable customer before than after the outcome of the 1923 crops was determined. The point is that the banker must keep informed concerning conditions in all the important lines of business in his trade territory.

Aside from a knowledge of conditions in particular lines of business, the banker must be fairly well informed concerning general business conditions throughout the country, and in addition to this, he must keep in touch with world conditions — particularly with conditions in those sections of the world with which his own state or trade territory has an extensive volume of commerce. The Texas banker, for example, is almost as vitally concerned with general conditions in England, Europe, or Japan as he is with the weather during the cotton-growing season, because conditions in those parts of the world will go far toward determining the price which the farmers of this state will receive for their cotton, and the price which the farmers receive for their cotton will go far toward determining the prosperity of every line of business in the state. By keeping informed with reference to general business conditions at home and abroad, the banker develops a background against which, consciously or unconsciously, he will frame the *general* credit policies of his bank — those policies which, in large measure, will govern the future conduct of his bank's affairs.

Even though the figures and ratios of a given statement place the risk in an unfavorable light, the banker would hardly be justified on that account alone in refusing credit. It may be that a very good reason exists for what appears to be an unsatisfactory statement, and when this reason is fully set out, the banker's attitude may very well undergo a complete change. The point is that the banker should not be governed by the superficial good or bad showing made by the financial statement upon analysis, but should, in either event, go more fully into the affairs of the bor-

rower that a complete understanding of his case may be arrived at.

It will often be found that a given set of figures and ratios in the statement of a wholesale grocery house, for example, will indicate an unhealthy condition, whereas the same figures and ratios in the statement of a cotton merchant would give no cause whatever for alarm. This brings us to the important observation that no financial statement can be adequately, or even intelligently, analyzed unless the analyst is familiar with those practices and characteristics of the line of business represented by the statement which distinguish it from all others. A banker may be thoroughly familiar with the trade practices of the wholesale millinery business, but that knowledge would be practically useless, if not dangerous, should he in the light of it attempt to analyze the statement of a cotton seed oil mill. In brief, it may be stated that one of the main purposes of the present inquiry is to show how important to the banker is a knowledge of trade practices, and to furnish him with that knowledge concerning some of the more prominent lines of business in this state.

B. ANALYSIS OF COMMERCIAL AND INDUSTRIAL STATEMENTS

What the analysis means. When a statement is analyzed, certain comparisons are made between individual items and groups of items with similar items or groups of items in a *typical* statement which the analyst has more or less clearly in mind. The idea in making the analysis is to determine whether the showing reflected by the statement is good or bad. It can be good or bad only in comparison with something. That something is the showing made by the *typical* statement which the analyst has in mind. This typical statement may simply be a vague sort of thing — a composite of the analyst's general experience in handling numerous statements. On the other hand, it may be a more or less scientifically worked out type, an average of many

statements of concerns in a particular line of business. The Robert Morris Associates of Lansdowne, Pennsylvania, have for some time been engaged upon the compilation of data from which are formed typical statements of various lines of business. The Associates work out in their typical statements the standard relationships which the various items on the statement should bear to each other and also certain standard ratios — such as the ‘turnover’ ratios, some of which we shall discuss later on.

1. *The Internal Analysis — The Balance Sheet*

Assets and liabilities. The assets are usually grouped into quick assets and fixed or slow assets — the former group being composed of those assets, such as cash, receivables, and merchandise, which are in constant process of being turned over in the course of business and being realized in the form of cash. The liabilities are usually grouped into current liabilities and fixed or slow liabilities. The former group comprises those liabilities which must be met within a short period of time and the proceeds of which, whether represented by cash, goods or services, have presumably gone into the quick assets or at least have been used in such a manner in the concern’s operations as to further the turning-over process through which the quick assets must pass before being realized in the form of cash. The more common current liabilities are notes payable to banks and trade creditors, accounts payable to trade creditors, and certain accrued liabilities, such as wages, interest and taxes. The fixed or slow liabilities include mortgage or bonded debt or other debts which do not mature within a short time — usually a year. Ordinarily a maturing mortgage or bond, although having less than a year to run, is not included among the current liabilities, if the concern has made any provision to take care of it or refund it or if it is of such a nature as will permit its being refunded. It would be illogical to include such a liability among the current liabilities, because the proceeds derived

from it have in all probability not gone into the concern's working capital, and it is not such a liability as may be expected to be liquidated from the sale of, or the conversion of the quick assets into cash. In the case of a going business, the fundamental distinction between a current liability and a fixed or slow liability is that the former will be paid out of the proceeds realized from the sale of quick assets, or at least the continuous conversion into cash of such quick assets as merchandise inventories and receivables, whereas the fixed or slow liability will usually be paid only out of the gradual accumulation of profits from the earnings of the business, if, indeed, it is to be paid at all.

The difference between the assets and liabilities represents the net worth of the concern or the interest of the owners in the business. In the case of a corporation, the net worth is represented by the capital stock and surplus. The net worth appears on the liability side of the statement and when added to the total of liabilities should equal the total of assets, thus serving to balance the statement.

A brief definition and discussion of the more important assets and liabilities may be of interest at this point.

ASSETS —

Cash: This item should represent actual money or checks in process of collection available for the payment of expenses or current debts. It is, of course, a quick asset.

Accounts receivable: This item should represent the debit balances on the books of the concern standing against various customers for goods or services sold them. The accounts must be current and collectible to be properly considered quick assets.

Notes receivable: This item corresponds with accounts receivable, except that the customer's obligation is represented by a promissory note (or frequently by an acceptance) instead of a book balance. The same considerations apply to it as to accounts.

Merchandise inventory: This item includes all goods owned by the concern which are available for sale in the normal course of its business operations. In the case of a manufacturing establishment, the merchandise will consist of raw materials, goods in process of manufacture, and finished product. The so-called turnover cycle begins with the merchandise which is turned into receivables. The turning of the latter into cash completes the cycle. The turnover cycle is of interest to the banker for it determines the length of time for which the concern should borrow to finance any one transaction, and it informs the banker how long he must wait for the completion of the transaction which he has been called upon to finance.

Fixed or slow assets: These assets consist of plant, buildings, real estate and equipment used in the business, and, in general, all other assets which are not 'working' — i.e., not being turned into cash.

Prepayments and deferred assets or debits: Prepayments are of the nature of a receivable and usually represent service due the concern which has been paid for but not yet rendered. The payment of rent in advance is a common example. Deferred debits usually represent some expense which has been paid out but the full benefit of which has not been reaped during the operating period closed by the balance sheet under analysis. A concern may make a heavy expenditure for advertising, a large part of the benefit of which will accrue to the next one or two of the concern's operating periods. It would not be correct, therefore, to charge the full cost of such advertising to the period in which the expenditure was made; consequently, at statement date a part of it is set up as an asset to be charged down in the subsequent operating periods. From the standpoint of value in liquidation, deferred debits, of course, have no value.

Goodwill: Unless the concern has made a bona fide purchase of the goodwill, it has no place in the financial statement. Sometimes it is written into the assets to

cover up losses. The writer recalls a case of recent occurrence where an item of goodwill in the amount of over a million dollars was arbitrarily set up on the books for the sole purpose of covering up an impairment in capital. As an asset in the liquidation or dissolution of the business, goodwill has no value.

LIABILITIES —

Notes payable to banks: This item represents money borrowed from banks principally for the purpose of defraying operating expenses and taking discounts on goods purchased. If the concern and the bank are functioning properly, the proceeds of bank loans will not be used for investment in permanent or fixed assets, for the obvious reason that such assets will not of themselves provide the means of liquidating the loans.

Accounts payable: These accounts usually represent book credits in favor of trade creditors for goods purchased and not yet remitted for. If these creditors grant a sufficiently large discount for cash payment, accounts outstanding should not be large, for the concern would profit by borrowing from the bank and paying the trade creditors. The retail lumber dealer, for example, buys on terms of two per cent discount for payment of the bill within ten days with net terms of sixty days. This means that if the dealer chooses to forego the discount, he will have to pay the lumber mill or jobber a flat rate of two per cent for the use of the funds represented by the bill for a period of fifty days. This is equivalent to interest at the rate of about $14\frac{1}{2}$ per cent per annum. Since the dealer can borrow from the bank at not over eight per cent per annum, he will save at the rate of $6\frac{1}{2}$ per cent by taking his discount. Of course, this calculation assumes that the dealer will actually pay the miller or jobber at the expiration of the net terms period of sixty days. If he does not pay then (and frequently he will not), and if the jobber or miller will allow his bill to run on indefi-

nately or until the turnover cycle of the business has been completed, the profit in taking the discount by borrowing from the bank at eight per cent would be diminished very considerably, if not entirely eliminated.

Notes and acceptances payable: This item should include notes and acceptances given trade creditors. Unless the business is one in which it is customary for the trade creditor to extend long terms and accept the note or acceptance of the debtor, this item should not appear in the statement. Its appearance otherwise would indicate that the concern has had to give notes or acceptances in the settlement of delinquent accounts — and this would be a serious reflection upon its credit standing.

Reserve for taxes: This, like the other liabilities so far discussed, is a current liability, inasmuch as it represents what the concern estimates it will have to pay within a short time as taxes.

Accrued liabilities: These are also current liabilities and represent such expenses as wages and interest which are properly chargeable against the operating period closed by the statement but which will not be paid until some future date.

Fixed or slow liabilities: These liabilities include bonds, mortgages, and all other obligations of the concern which are not of current maturity (i.e., which do not mature within a year), or which are subject to refunding (even though of current maturity) and are not properly an offset to quick assets.

Reserves: There are several different classes of reserves, and they sometimes cause the banker no little difficulty. The so-called valuation reserves, such as the reserves for bad debts, depreciation and depletion, are merely offsets to certain assets and should properly be shown on the asset side of the statement as deductions from the face value of the assets to which they apply. They should not be considered a part of the concern's net worth — although it often happens that for income tax

purposes or for other reasons a concern will overestimate its depreciation requirements and thus the reserve for depreciation will in part represent net worth. There are other reserves which are real liabilities — such as the reserve for taxes. These reserves are of the nature of accounts payable. There is a third class of reserves which are purely a part of the net worth, and for credit purposes should be considered as net worth — such as the reserve for improvements or additions to plant, reserve for sinking fund, and reserve for contingencies. Such reserves are set up merely to earmark a portion of the surplus (if the concern is a corporation) which may not be disbursed as dividends. There is another class of reserves which represents the writing up of the value of an asset on the books in accordance with an appraisal. This class is met with in this state mainly in connection with the oil producing industry, and we shall withhold our consideration of it until we take up the discussion of that industry.

The current ratio: The banker considers the concern whose statement he is analyzing from two points of view: first, as a going or operating concern, and secondly, as a concern in liquidation. The first viewpoint is naturally of the greater importance, because if there were any reason to believe that the concern could not continue as a going institution, the banker would give no consideration to extending it credit. Therefore, there is always the presumption that the borrower is going to continue in business. Nevertheless, as a factor of safety, the banker must assure himself that, even if the borrower should not be able to continue and should have to liquidate, the assets of the business could be closed out at a sufficient sum to pay off the creditors without loss. The banker has both these points in mind when he considers the most important ratio to be derived from the financial statement — the current ratio.

This ratio is calculated by dividing the sum of the current liabilities into the sum of the quick assets, the

quotient being the number of dollars of quick assets per dollar of current liabilities. The banker is naturally interested in the current position of the concern — i.e., in those assets and liabilities which are constantly turning over in the course of normal business operations — because the loan which he makes will become one of those current liabilities just as the proceeds of it will enter into the quick assets, and because the liquidation of the loan will come out of the quick assets.

Looking at the business as a going concern, the banker will insist that the current ratio be high enough to insure a cash income sufficient to take care of maturing liabilities. In other words, during the normal course of the concern's operations, when merchandise and receivables are being constantly turned into cash, there must be a sufficient amount of such merchandise and receivables to yield enough cash to take care of the current liabilities as they mature. From this standpoint, it is clear that an installment furniture house, whose receivables are payable in installments running over a period of many months and whose turnover of merchandise inventory is relatively slow, must have a large amount of quick assets in proportion to current liabilities to provide a sufficient income of cash to take care of current maturities among the liabilities. That is to say, the installment house would have to have a relatively high current ratio. On the other hand, a flour mill which sells largely for cash, or at least on only short time, and which turns its inventory rapidly, would not need relatively as large an amount of quick assets to provide sufficient cash to meet the current maturities among its liabilities. That is, a lower current ratio would be in order.

Looking at the business as a liquidating proposition, the banker would insist upon a reasonable excess of quick assets over current liabilities, because he knows that at forced sale the assets would never bring one hundred cents on the dollar, whereas the current liabilities would not depreciate at all. Therefore, a margin would be necessary to

care for the shrinkage in value. Moreover, a concern is not likely to underestimate the value of its quick assets in rendering a financial statement, and a margin is required to care for the personal equation. In some lines of business the shrinkage in value of the quick assets at forced sale would be less than in others. To revert again to the installment furniture house and flour mill, as examples, it is easy to understand that the depreciation or shrinkage in value in the case of the former would, in all likelihood, be much greater than in the case of the latter, for the reason that the quick assets of the furniture house would consist mainly of receivables due from individuals, who in large part are people of small means and of no established credit standing, and of merchandise which is slow-turning, non-staple and for which the demand is very elastic. The receivables of the mill, however, would, in the main, be due from flour and feed dealers and from wholesale grocers — most of whom would have an established credit standing; and the mill's inventory would consist of flour and grain, both of which are staples and necessities of life and have a very ready market. The margin to care for shrinkage in the quick assets would, therefore, have to be greater in the case of the installment furniture house than in the case of the flour mill.

How high should the current ratio be? It seems to be generally accepted that a ratio of two for one — that is, two dollars of quick assets for every dollar of current liabilities — is desirable. We have just seen, however, that it is impractical to lay down any such arbitrary standard. Some lines of business should maintain a wider margin of quick assets than others. A concern which deals in staple commodities, sells on short terms, and turns its inventories rapidly need not have as high a ratio as one which sells on long time (with the consequent increased hazard from bad debt losses), turns its merchandise slowly, or deals in merchandise which is not staple or is subject to style changes. Moreover, the ratio in the case of a given concern may be

high and very satisfactory at one season of the year, and very low at another season. The statement of a wholesale milliner, for example, will usually show an exceedingly high ratio as of about November 30th, and may show a ratio of considerably less than two for one as of the end of March. The reason is that the business is very seasonal. November is an end-of-season month, when the business should be in a very liquid condition and have most of its liabilities paid off; whereas March is in the midst of the busy spring season, when the milliner is leaning heavily upon his creditors. With a proper understanding of the nature of the wholesale millinery business and particularly of the seasonal and therefore temporary character of its demand for credit, the banker would not necessarily be justified in saying that a ratio of less than two for one in March is too low.

The mere fact that the current ratio is favorable should not be allowed to govern the banker in his decision as to the desirability of the credit risk. The current ratio is only one of several factors to be considered. A concern may have a favorable ratio, but the composition of its quick assets may be such as to make the risk undesirable. Receivables, for example, may be heavily out of proportion to merchandise and volume of business due to poor collections, and since receivables contain an item of gross profit not included in merchandise, an increase in receivables relative to merchandise would tend to increase the current ratio. But a disproportionate increase in receivables would react unfavorably upon the credit risk even though the current ratio was increasing, because it would reflect unsound tendencies in the business. Again, a concern may have a satisfactory ratio and still be undercapitalized — i.e., operating too heavily on borrowed money.

It is sometimes said that the ideal condition for an ordinary merchandising establishment is one in which the current liabilities are not in excess of the receivables and cash. The idea is that the owners of the business should

provide enough capital to care for the fixed investments and the normal inventory, and the creditors should be called upon for only as much capital as may be required to carry the receivables to maturity, and possibly for funds to finance extraordinary purchases of inventory during the peak seasons. If borrowed money is confined within these limits, there is less likelihood of its becoming 'frozen up' as a part of the necessary *permanent* working capital which the business will have to maintain as a going concern. Should the concern go on a cash basis, the ordinary run of collections out of the receivables would take care of the creditors without disturbing the minimum working capital (represented by the inventory) necessary for the continuance of the business. Moreover, if the current debts do not exceed the amount of the collectible receivables, they will be (or at least can be) paid sooner than otherwise, because receivables are one stage nearer cash than is merchandise.

The proportion of debt to net worth: Hardly less important than the current ratio is the proportion of borrowed capital to the capital invested in the business by the owners. This proportion is calculated by dividing the total indebtedness of the concern by the net worth — the resulting quotient being the number of cents or dollars invested in the business by creditors to every dollar so invested by the owners. If creditors have a disproportionate amount invested in the business, a condition of undercapitalization exists. It is evident that if a concern can use borrowed money profitably, there will be a strong inducement to operate as largely as possible upon such money, because the earnings on the owners' investment in the business will thereby be increased. On the other hand, there is the danger of spreading out too much, with the result that in hard times, when profits cease and deficits are the rule, the interest charges may become too heavy. Moreover, in the event of liquidation, it may be found that the owners' investment does not constitute a sufficient margin to protect all the creditors from loss. The wise course, therefore, for the

management of an enterprise to follow is that of operating reasonably well within the concern's own resources.

Just how high the proportion of debt to worth may properly go depends, as in the case of the current ratio, upon a variety of factors. The nature of the business is very important. A business with slow turnovers and handling non-staple commodities should depend relatively less upon creditors than a business not subject to those disadvantages. Then the season of the year is very important. The cotton merchant, for example, should be practically out of debt in mid-summer; whereas in November or December his borrowings may run far in excess of his net worth.¹ The wholesale produce dealer should reduce his indebtedness very materially during the spring and summer, but might owe quite heavily during the fall and winter. In general, it might be said that if the indebtedness exceeds from seventy to eighty per cent of the net worth the banker should inquire into the cause. If a large part of the debt is of a fixed or slow nature, a high proportion is not so serious as it would be if all the indebtedness were current. It should also be stated that the smaller the concern the lower the ratio of debt to worth should be, because small concerns are shorter lived on the average than large ones, and, owing to the very fact that they are small, they are less able to weather the storms constantly to be encountered in every field of competitive economic activity.

There are some lines of business which owe very heavily for borrowed money at certain seasons of the year but which are practically out of debt at other seasons. If a business of this kind has a good past record for meeting its obligations during the liquidating season, the banker may have no fear in granting a line during the borrowing season that, for a non-seasonal business, would appear out of proportion to the net worth. He knows that the borrowing will be only temporary and that within a short period of time the line

¹ It should be stated, however, that his borrowings will probably be secured by cotton.

will be steadily reduced. In the case of a non-seasonal business, however, the banker has a more or less substantial amount of capital almost *permanently* at stake in the business. Since there is no such thing as seasonal liquidation, owing to the nature of the business, it is not so easy to keep informed as to its general health as in the case of the seasonal business. If the latter does not liquidate or, at least, materially reduce its borrowed money as expected, the banker is at once put on notice that something is wrong. But he must keep a constant watch on the non-seasonal business, assuring himself as best he can that its volume is being maintained, and that collections are not lagging or turn-overs falling off.

The turnover of receivables: There are a great number of relationships among the items on the financial statement and profit and loss account which may be expressed in the form of ratios and which may be put to good use by the banker, but we shall have to confine our attention to a few of the more important ones, the first of which will be the turnover of receivables. This turnover is found by dividing the amount of receivables into the net sales figure. If a concern sells on thirty days' time, it should, in the perfect case, turn its receivables twelve times a year — i.e., the uncollected accounts and notes on its books should not exceed one month's sales. Of course, in practice all receivables are not collected when due. On the other hand, however, some customers pay cash for their purchases and many others discount their bills, which means that if those customers who take the net terms offered pay promptly on the due date of the account, the concern selling on thirty days' time ought to have less than thirty days' sales outstanding at statement date. It is to be borne in mind that if the statement is rendered directly after certain seasons, such as the fall season in this country, when trade is unusually good and volume of sales heavy, the outstanding receivables may be relatively heavy in proportion to the year's sales. Superficially this might seem to indicate that some of the accounts

are slow and past due. In fact, however, they may practically all represent sales made within the past month and be very current. Therefore, the banker must give consideration to the seasonal character of the business in calculating the receivables turnover. But in general this turnover, when considered in the light of the usual terms of sale will provide a fairly good check upon the credit and collection policies of the business. It is to the interest of the business and the banker that the turnover of receivables be kept at as high a rate as possible, because the higher the rate of turnover, the better the collections and the less the danger from bad debt losses. Moreover, a slow turnover of receivables, or poor collections, means that the business must have a larger amount of its capital tied up in such assets than is necessary. And capital needlessly tied up will obviously cut into the earnings on the owners' investment.

The turnover of merchandise inventory: This turnover is calculated by dividing the average annual inventory into the year's net sales at cost (net sales minus gross profit). The sales-at-cost figure is used because the inventory is usually on a cost basis, and therefore, in order that sales and inventory may be strictly comparable, the gross profit included in net sales should be eliminated. The quotient obtained from the above calculation will give the number of times the inventory was turned during the year. This figure may be compared with what is considered normal or typical for that line of business. Frequently it will not be possible to obtain the average annual inventory, in which case the inventory as shown on the statement in hand will have to be used. In that event, seasonal influences must be kept in mind. Often the relationship between inventory on hand at statement date and sales at cost is stated in terms of how many months the inventory will run the concern on the basis of the last year's volume, as follows: the sales at cost for the preceding year is reduced to a monthly basis, and the monthly figure obtained is divided into the inventory. The quotient represents the number of months

the inventory on hand will last the concern if its future sales are at the same rate as the average monthly sales for the preceding year. A company, for example, which should turn its merchandise four times a year should not, theoretically, have more than three months' sales at cost on its books. Here again, however, as in the case of receivables, the banker must give due weight to the seasonal character of the business. The statement may have been rendered at a time when inventory is very heavy in anticipation of a seasonal demand. Usually, however, this will not be the case, for most concerns will render statements at those times of the year when inventories, receivables, and borrowed money are all at or near the lowest points, in order to appear in as liquid a condition as possible.

As in the case of the turnover of receivables, the turnover of inventory should be as rapid as possible. The borrower should keep as little capital tied up in merchandise as is consistent with maintaining the requisite selection of goods for the trade; or, stated in another way, a concern should maintain as large a volume of sales as possible in proportion to the capital invested in inventory. The smaller the investment in inventory in proportion to sales the more the concern saves as interest on capital required to carry the inventory, and the less the danger from shopworn and obsolete goods. It may be of interest to consider a concrete example of the importance of a rapid turnover of inventory. Assume the following facts:

Annual sales.....	\$500,000
Gross profit.....	20 per cent
Cost of sales.....	\$400,000
Average inventory.....	\$350,000
Annual turnover.....	1.15 times

Suppose that, through judicious buying and an enterprising sales policy, the same volume of business is maintained but the inventory is turned twice during the year. This would mean that the business was transacted with a smaller annual

average investment in merchandise. In fact, it would mean that the business had an average investment of only \$200,000, or \$150,000 less than the inventory formerly carried. If this sum could be applied in reducing indebtedness, the saving in interest at, say, seven per cent would amount to \$10,500, which would be available to the owners as additional earnings. The same result, approximately, would be accomplished by building up volume instead of reducing the average investment in inventory. Inasmuch as expenses would, in all probability, not increase proportionately to the increase in volume, larger net profits would result for the owners of the business. It is therefore clear that an increase in the turnover of the merchandise inventory can be measured in additional profits for the owners of the business.

The turnover of net worth: It is apparent from what has just been said that the smaller the amount of capital which the owners have invested in a profitable business in proportion to the volume of business done, the greater will be the percentage of profits realized. On this account, as previously pointed out, there is an inducement for the owners to expand the operations of the business as much as possible and to borrow heavily.

Miscellaneous considerations in the internal analysis: Cash should be ample to care for the inevitable cash outlays that every business has to meet. Moreover, a comfortable cash balance is a form of insurance against emergencies. Most banks insist that a cash balance of about twenty per cent of the bank borrowings be maintained on deposit. As a general proposition, the cash on hand and in banks should amount to from fifteen to twenty per cent of the total current liabilities.

The business should not have an unnecessary amount of capital invested in fixed assets — particularly, if those assets are not used in the normal conduct of its business. The writer has in mind an automobile dealer who is heavily indebted to current creditors, while carrying on his statement four business lots — at present unproductive of

revenue — at a value equal to one third of the total current liabilities. If those lots could be disposed of and the proceeds used to pay off a corresponding amount of liabilities, his profits would be increased and his credit improved.

The financial statement should provide space for indicating the concern's contingent liabilities and the amount of assets pledged to secure creditors. Very often contingent liabilities become real liabilities, and not infrequently the most desirable assets may be pledged or mortgaged to some particular creditor — both of which circumstances would have a very material bearing upon the desirability of the risk.¹

2. *The Internal Analysis — The Profit and Loss Account*

A profit and loss account should accompany the balance sheet: The profit and loss account is hardly less important than the balance sheet to a proper understanding of the financial condition of a borrower. The balance sheet is merely a cross section of the financial condition of a business as of a given date. The profit and loss account, however, is a summarized history of the operations of the business during the period closed by the balance sheet. This account shows the source of the income of the business and the cause and nature of its expenditures, and indicates whether operations are being conducted at a profit. This is information which the banker ought to have. Nevertheless, it is only in the exceptional case that the Texas banker receives a profit and loss account. This may be due to the fact that some bankers are not fully appreciative of its value, or it may be due to a feeling on the part of the borrower that the information revealed by the account is of too intimate and private a nature to be intrusted to the banker. However, since the borrower is obtaining the use of funds which

¹ In this connection it should be stated that outstanding commitments for merchandise should be fully revealed — especially in periods of falling prices.

belong to other people and of which, in a sense, the banker is only trustee, it is no more than may reasonably be asked that he take the banker into his confidence in order that he may be thoroughly satisfied that the funds have been safely loaned. Moreover, a banker should be something more than a money lender. He should be an adviser to the borrower. He cannot advise intelligently, however, unless he knows every pertinent fact concerning the condition of the borrower's business.

Net profit: The profit and loss account summarizes the items of income and expenditure and reveals the net profit earned during the operating period and available to the owners of the business, either in the form of withdrawals or dividends or as an addition to the net worth. The primary purpose for which a business is founded is profit making. The profit and loss account indicates to what extent the purpose is being accomplished. The net profit realized in any given period depends, in the case of the merchandising establishment, primarily upon the gross profit, the volume of sales, and the expense of doing business.

Gross profit: This profit is the difference between the amount received from the sale of goods and the cost of the goods. The management of a concern should show in the profit and loss account how the amount of gross profit is arrived at by listing the amount of inventory at the beginning of the operating period, adding the cost of goods purchased during the period, and subtracting from the sum the amount of the present inventory, taken at cost or market whichever is the lower. The result will be the cost of goods sold. By subtracting this figure from the net sales, one obtains the amount of gross profit. It is clear that the amount of net profit ultimately realized from the operations of the period will be directly affected by any alteration in the spread between the cost of goods sold and the actual sales — that is, between the cost price of the goods and the price received for them. The management of the business

should therefore buy as cheaply as possible and sell at as high a price as possible.

The percentage of gross profit to selling price or cost price of goods may differ widely as between two lines of business. In the retail furniture trade, for example, the gross profit is very high, amounting to as much as fifty per cent or more of sales, but in the wholesale grocery trade it is low, running perhaps not more than ten per cent of sales on an average. The reason for such a wide difference is to be found in the fact that the furniture trade must employ comparatively highly paid help, must maintain expensive and large establishments in the high rent sections of the city, and has only a relatively slow turnover of inventory and receivables in proportion to its necessary expenses. Moreover, the merchandise is of a semi-luxury character and subject to some risk from style changes. All of these factors compel the furniture dealer to charge a price for his merchandise far in excess of cost price. Conditions practically contrary to those just mentioned prevail in the wholesale grocery trade, with the result that the spread between cost price and sale price of merchandise is comparatively narrow.

The volume of sales: If a concern can increase its volume of business without a greater proportionate increase of expenses, or reduction of gross profit, it will earn more for its owners. And, as a general rule, volume can be increased without a disproportionate, or even commensurate, increase in expenses — at least, up to a certain point. For this reason, the management of a business will ordinarily put forth its greatest effort toward increasing volume. There is a danger of spreading out too much if, as is so often the case, the expansion is financed mainly by calling upon creditors instead of the owners for the additional capital required. In the discussion of the turnover of receivables and inventory, it was pointed out that a business gains through a more rapid turnover, because a smaller amount of capital is required in proportion to the business done. One way to increase the turnover of receivables and inventory is to

increase the volume of business done relative to the investment in them.

Ratio of expense to sales: Constant pressure should be exerted to keep expense as low as possible in proportion to sales. In some lines of business, the management has little or no control over either the purchase price of the goods handled or manufactured or the selling price. This condition is characteristic of lines of business which deal in goods having a wide and strongly competitive market. The cotton seed oil mill, for example, has individually very little to say about what it will pay for cotton seed, and it has very little more to say about what it will receive for its oil, cake, meal, and hulls. The market for all those products is determined by the free play of competitive forces which are practically nation wide in their extent. But one factor vitally affecting the net profit to be earned by the mill is, in large measure, subject to the control of the management, and the quality of the management is often tested by the control which it actually exercises over that factor. That factor is the expense of doing business — principally, the cost of labor, management, and borrowed money.

Merchandising policy: The profit and loss account, if complete, will show the merchandise purchases made during the year. By comparing them with the cost of goods sold, the banker may form an opinion as to the merchandising policies of the business. Ordinarily a concern should not purchase during the year more goods than it sells in the same period. If purchases outrun sales, the management lays itself open to the charge of speculating in inventory, and the average business has risks enough confronting it in the regular conduct of its affairs without entering the field of speculation. We shall find when we take up the discussion of the wholesale hat trade that one concern in that line was bankrupted by ill-advised purchases of merchandise.¹ During the year 1920, over \$800,000 of merchandise was bought but only about \$500,000 was sold. At the end of the

¹ See Appendix V, page 287.

year, therefore, the company had an excessive inventory on hand, mainly bought at the high prices prevailing through the greater part of the year. Prices fell sharply in the latter part of 1920 and in 1921, with the result that enormous losses were sustained on the inventory. Since the heavy purchases of merchandise were financed principally with borrowed money, the fall in prices rendered it impossible for the business to satisfy its creditors and a failure was inevitable. The company was no doubt to some extent the victim of circumstances, but its management should have been far-sighted enough to see the possible consequences of expanding too rapidly on borrowed capital. The chief responsibility, however, in the writer's opinion, rests upon the bankers who financed the concern. They should have been conversant enough with general business conditions to prevent the company from overreaching itself. If they had been a little less free in extending credit, the company would have found it impossible to buy so heavily in 1920. Possibly they may be excused for not foreseeing the coming depression, but they cannot be excused for allowing the company to borrow sums entirely out of proportion to what it was entitled to on the basis of its own net worth. We shall find, in the consideration of this case, that the bankers and the trade creditors of the company, in their attempt to serve it, unwittingly did it irreparable injury.

By considering the merchandise purchases in connection with the outstanding accounts payable and in the light of the terms of purchase, a check may be obtained on whether discounts are taken and whether, even though discounts may not be taken, the company pays its bills when due. For example, if the terms accorded the company are two per cent ten days, net sixty days, accounts payable should not exceed sixty days' purchases (or one sixth of the annual purchases figure), even though the discount is not taken; and they should not exceed approximately ten days' purchases, or one thirty-sixth of the annual purchases figure, if

the discount is taken. Allowance must be made, however, for any unusual purchases that may have been made shortly before the statement was rendered.

Analysis of surplus: Frequently a concern may have some extraordinary income or expenditure not properly applicable to a particular year's operations — such as recoveries on charged off assets, profits from sale of assets, depreciation of inventories or receivables. But these transactions affect the net worth and they should be detailed. This is accomplished by adding to the surplus at the beginning of the period the net earnings (after all deductions) and all extraordinary income, then by deducting from the total all extraordinary expenditures. The result is the surplus to be carried forward.

3. *The Comparative Analysis*

The balance sheet: A fairly good picture of the present condition of a business may be obtained from the analysis of a single statement, but in order to get an understanding of the progress or lack of progress made (which is at least as important as a knowledge of the concern's present condition), several statements of the business must be set up side by side and analyzed comparatively. If the net worth shows a steady increase, the presumption is that operations have been profitable. The presumption could be checked by referring to the appropriate profit and loss accounts, if available. By noting the changes which have taken place in the various items on the balance sheets, both with respect to themselves over the periods covered and with respect to each other, the banker can learn a great deal about the management's policies and the direction in which they are leading the business. If receivables are increasing much faster than inventory, it is likely that collections are not being pushed. This could be verified by checking against the ratio of receivables to sales. The same thing would be indicated by a substantial increase in notes receivable, relative to accounts receivable, if the

business is one that does not ordinarily sell on a note basis. The statements may show that net worth is on the increase, and on the other hand that the current ratio is falling and that the proportion of debt to worth is increasing — thus indicating that, while the business is operating at a profit, it is relying to an increasing extent upon creditors. The turnover of inventory for the several periods covered would also be a good index of the progress the business was making. And so on — the comparative analysis tells the banker whether the business is ironing out the past difficulties and maladjustments in its affairs, or is getting into a more and more unfavorable situation.

By setting up the statements at the beginning and at the end of a period and noting the increases and decreases in the various items, the banker can get a very good idea of just what has taken place in the concern's affairs. He should keep in mind the fact that every increase in an asset is accounted for either by a decrease in one or more other assets, or by an increase in liabilities, or by an increase in reserves or net worth — or, finally, by all three together. Similarly, a decrease in an asset is offset by an increase in other assets or a decrease in liabilities, reserves or net worth. An increase in a liability means a decrease in some other liabilities, reserves, or net worth, or an increase in assets — and so on. Suppose, for example, that quick assets show a decrease which is not offset by a corresponding decrease in current liabilities. One, or more, or all of the following changes might account for it:

1. Reduction of slow debt; no effect on net worth.
2. Increase of slow assets; no effect on net worth.
3. Withdrawals or dividends; net worth (or reserves) decreased.
4. Operating loss; net worth decreased.
5. Depreciation of certain quick assets; net worth (or reserves) decreased.

Let us now consider the comparative statements appear-

ing on this page. The comparison shows quite clearly that the concern has been expanding its investment in fixed and slow assets at the expense of its working capital. It would appear from the increases in leasehold improvements and furniture and fixtures that the company has increased the size of its place of business. Without profit and loss figures we are unable to judge whether the increase is justified by an increase in business. It should be noted that a very substantial amount of money has been spent in building or acquiring a warehouse. The total increase in fixed and slow assets amounts to \$215,661, which apparently was obtained as follows: \$117,001 from a decrease in quick assets, \$24,841 from an increase in current liabilities, \$50,000 from an increase in capital stock, and \$23,819 from earnings. It is unsound policy for a business to use the proceeds of current borrowings for investment

	12-31-22	12-31-23	INCREASE	DECREASE
Cash.....	\$ 65,422	\$ 60,001	\$	\$ 5,421
Accounts receivable...	237,770	218,811	....	18,959
Notes receivable.....	33,268	38,449	5,181	....
Merchandise.....	498,974	401,172	....	97,802
Quick assets	\$835,434	\$718,433	\$	\$117,001
Leasehold improve- ments.....	\$135,439	\$187,952	\$ 52,513	\$.....
Due from officers.....	12,359	53,343	40,984	.....
Furniture and fixtures.	58,346	72,872	14,526	.....
New warehouse.....	0	107,638	107,638	.....
Slow assets.....	\$206,144	\$421,805	\$215,661	\$.....
Total assets.....	\$1,041,578	\$1,140,238	\$98,660	\$.....
Notes payable — banks	\$330,000	\$360,000	\$30,000	\$.....
Accounts payable.....	94,345	89,448	.....	4,897
Accrued items.....	12,499	12,237	.....	262
Current liabilities...	\$436,844	\$461,685	\$24,841	\$.....
Capital stock.....	\$500,000	\$550,000	\$50,000	.....
Surplus.....	104,734	128,553	23,819	.....
Total liabilities.....	\$1,041,578	\$1,140,238	\$98,660	\$.....

in fixed assets, as this concern has done. It is also unsound to draw down quick assets, or working capital, for that purpose, unless the business has more working capital than it needs. Such does not seem to have been the case with this business, for in 1922 the current ratio was less than the customary two for one, and in 1923, as a result of transferring quick assets to fixed and slow assets and increasing current liabilities, the current ratio has been still further reduced. Inquiry should be made as to why, in the light of the other circumstances, an increase of over \$40,000 occurred in the amount due from officers. The increase in capital stock of \$50,000 may have been bought by the officers and the \$40,000 increase in the amount due from them may represent notes given for the stock. To sum up: the banker should require that the working capital be restored by calling in the amount due from officers, mortgaging the warehouse and, possibly, increasing the capital stock — the proceeds from these operations to be used either in additions to quick assets or in reducing the current liabilities. In short, the comparative analysis shows that this concern has been violating some of the basic principles of good business practice. The 1923 statement alone would not have brought any of the above facts to light.

The profit and loss account: A comparison of profit and loss accounts covering several operating periods will show whether or not the earning power of the concern is increasing. It will likewise facilitate tracing the cause of any increase or decrease in earnings or net profit — such as a widening of gross profit, a reduction of expense, or an increased volume of business. The comparison will throw light upon managerial policies and indicate whether they are sound.

CHAPTER II

AN OUTLINE OF THE PRINCIPLES OF FINANCIAL-STATEMENT ANALYSIS (*concluded*)

A. THE FARMER'S STATEMENT ¹

Usual assets and liabilities: The typical statement will usually show a small amount of cash on hand or in bank, some receivables (perhaps a considerable amount if the farmer is financing a number of tenants), work animals, a few cattle and hogs, farm tools and equipment, and *land*. The principal liabilities will be notes due to banks and mortgages on the land. Aside from the small amount of cash and the receivables, and possibly the live stock, there are no assets that could really be called 'quick'; and it should be remembered that in comparison with land, the other assets are usually of small moment. On the other hand, there will be very definite current liabilities, such as debts due to banks and accounts due stores. In some instances, the current debts will be offset to some extent by the purchases of live stock, farm tools, and machinery listed among the assets; but ordinarily the current debts will be represented by nothing appearing among the assets since the proceeds thereof will most probably have been used for crop making purposes — i.e., for meeting the expenses and costs incident to planting, cultivating, and harvesting the crops. Owing to the uncertain and hazardous character of the farmer's business, no definite value for credit purposes could be given these expenses and costs. Therefore, it is very exceptional to find a farmer's statement showing an excess of quick assets over current liabilities, such as is usually found in the statement of a commercial or industrial establishment.

¹ For further discussion of the basis of extending credit to the farmer see *infra*, Chapter III.

Land: The most important asset on the farmer's statement will generally be his land, and it is this asset which forms the principal basis of his credit. But, in many cases, even the land, though it be very valuable, cannot be taken as the real basis of credit, owing to the homestead law of Texas. This law permits a married man to hold free of practically all debts, except purchase money obligations, 200 acres of land regardless of value, and in addition makes it impossible for him, even though he be joined by his wife, to mortgage it to secure his ordinary creditors. Whatever may be the other side of the question as to the merits of the law, it practically destroys the only basis of credit which thousands of men have in this state. It works an especial hardship upon the farmer who owns 200 acres or less of the more valuable land of the state. The farmer of Ellis County or of Collin County, for example, owning 200 acres of fine black land, might very conservatively show a net worth of over \$30,000 (assuming that no purchase money mortgages were outstanding against the land), and yet he would have no basis of credit, except, indeed, his character. The risk would be a moral one, purely. This unfortunate condition arises from the fact that if the farmer and his wife should not feel morally bound to deed over or sell the homestead, and in this manner discharge a debt which they could not otherwise pay, there would be no way under the law whereby the creditor could attach the land. In the western part of the state, and in other sections where land is not so valuable as in the rich black land belt, farmers may own very extensive acreage, and a subtraction from their total landholdings on account of the homestead law does not so seriously affect their net worth attachable for debts.

There are a number of very important questions with regard to the land which appropriate schedules on the farmer's statement should answer. What is the value of the land, and what is the basis of the valuation? The valuation placed upon it in the statement can usually be checked by the banker, whenever necessary, by reference to sched-

ules of land values which the more important land loan companies maintain. The location of the land has a great deal to do with its value. As a general rule, the rich black lands of central and northern Texas, the heart of the cotton-growing region, are the most valuable in the state. Then in whose name is the title to the land? Not infrequently a farmer will show on his statement large and valuable tracts of land which are carried in his wife's name. This land, for credit purposes, should not be considered an asset of the farmer at all.

Since the land occupies so important a place in determining the farmer's right to credit, the banker is naturally very much interested in the amount of indebtedness outstanding against it, and the rank of the various mortgages and deeds of trust as to lien. A farmer may not be a very desirable credit risk, if his net worth is composed principally of equities in land which is subject to heavy encumbrances. The rate of interest paid on the land debt should be stated, since the annual outlay for interest is in many cases a very heavy burden. The maturity of the debt is important, for if it is very near and there is some doubt as to the ability of the farmer to pay or renew it,¹ the banker may well hesitate before becoming involved with the applicant. On the other hand, if the maturities are well into the future, they do not constitute a present menace, and the banker may feel more at ease in financing the farmer's current crop operations, even though he may appear to be involved — and this, because the banker will have an opportunity to retrieve his advances from several crops before the farmer's attention has to be given to the land debt.

Land cultivated — crops, acreage: Since the banker is presumably advancing money for financing the current crop operations, he should know how much land the farmer will cultivate and the acreage which he will allot to each crop. The banker is especially interested in the amount of

¹ And this may be difficult if the loan was obtained on the land at a time when land values were inflated, as they were during the war-years.

acreage allotted to the so-called money crops, the most important of which is cotton, for the state as a whole. The money crops are those which the farmer will sell, rather than retain for use on the farm. Corn and oats and other feed stuffs are, in the main, not money crops, since they are used by the farmers for feed. The banker will gauge his advances in accordance with what he thinks the cultivated land, and particularly that part of it planted to money crops, will yield. Often, as a result of crop failures or the unwise extension of credit to the farmer for purposes other than the making of crops, a bank line will be built up which it will require several good crops to liquidate. Not infrequently, the line will be pyramided through successive years to such a point that it can be liquidated only by the farmer's selling out or, when possible, by his obtaining loans on the land, using the proceeds to retire the current borrowings.

Live stock: The average farmer may have no more than a few head of draft animals, a cow or two, a few hogs, and some chickens. Others, however, may do a little stock farming in addition to their regular operations and may have live stock that is marketable and worthy of serving as a basis of credit. The farmer of this class should show on his statement the age and kind of stock — whether steers, cows, calves, horses, mules, etc. — and should list it in such a way that the value per head of each class of stock can be estimated. The banker can check this value roughly by comparing it with current live stock prices in the markets. The statement should also reveal whether any of the live stock has been pledged to secure other creditors. As a general rule, all creditors of the farmer — i.e., all current creditors — should stand on an equal footing as regards security. If the statement shows that the farmer's land is heavily encumbered or that it is practically all exempt from execution or that otherwise the farmer is really not entitled to credit on an unsecured basis, the banker should give serious consideration to demanding that the live stock

be pledged to secure the loan which is sought. If the banker obtains the live stock as security, he will preclude the possibility of some other creditor's getting a prior lien against it.

Receivables: This item on the statement may amount to a considerable sum if the farmer is a large landowner and does most of his farming through tenants whom he finances. The receivables may also include vendor lien notes purchased or taken for land that has been sold. It is very difficult to place a value upon the receivables for credit purposes. If they represent tenant notes, they are a speculative asset, inasmuch as they will generally depend upon future crops for their collectibility; and if they are vendor lien notes, usually insufficient information is furnished concerning the security back of them to enable the banker to reach a definite conclusion as to their value. The banker should, of course, obtain from the farmer as much information as possible concerning the character of the receivables and the security which may be behind them.

Miscellaneous considerations: From what has been said, it will be readily understood that the banker looks sharply to the ratio of indebtedness to net worth on the farmer's statement. This ratio cannot safely go as high, without adversely affecting the credit risk, as in the case of the industrial or commercial concern, for the reason that very little of the farmer's assets can be classed as 'quick' or readily marketable, and for the further reason that the farmer's business is of a very hazardous nature.

Since the usual source of liquidating the farmer's current liabilities is his crop, the banker should know whether it has been pledged to secure other creditors, and if it has not been pledged, he should give consideration to obtaining a mortgage on it himself. This may be particularly necessary in instances where there is any question as to moral risk, in order to make sure that the crop will not be pledged to secure some other creditor.

It often happens that a farmer will have considerable

outstanding contingent liabilities incurred through indorsing the notes of tenants and friends. In a business as uncertain as farming, these liabilities may easily become actual liabilities. The banker should inform himself thoroughly with regard to them.

It is often helpful to keep the statements of the farmer, which are rendered from time to time, set up on comparative forms for the purpose of noting any important changes that may occur in the items on the statements and to note the increase or decrease in net worth. In some statements which have come to his attention, the writer has noticed very marked increases in net worth within the space of a single year, and these increases have been so marked at times as to throw doubt upon the probability of their having arisen from profitable farming operations. In some cases, the writer has traced the increase in worth to an arbitrary write-up of land values. And where the increase in worth was really due to the farmer's profits from his crops, the comparison would generally show that the profits were invested in other land or in other non-liquid assets, with the result that the farmer was in little better condition than before to finance his crops without outside assistance.

B. LIVE STOCK MAN'S STATEMENT

Principal assets and liabilities: These will be very similar to those appearing on the farmer's statement, except that the item of live stock will assume a much more important place, and farm land will be supplanted by ranch land, of which the acreage will be large but the value per acre small. Among the liabilities there may appear debts to cattle loan companies or to banks — generally secured by chattel mortgages on the live stock. Unless the live stock man is engaged extensively in farming and therefore uses a large part of his current borrowings for crop operations, the total of his current liabilities should be less than the total of his quick assets — the latter being made up of his marketable live stock, current receivables and cash. In

other words, in contrast with the farmer, the live stock man is more of a merchant who carries merchandise (live stock) for sale. This statement might have to be modified to the extent that the live stock man's holdings are made up of breeding cattle or sheep or goats which are kept for the production of wool and mohair, but the live stock, even in those instances, is marketable and may, therefore, be considered a quick asset. Thus, as in the case of a commercial or industrial concern, if the statement of the live stock man shows an excess of current debts over quick assets, the conclusion is that his operations have been conducted at a loss or that he has been borrowing for investment in fixed and non-current assets. There is no sound reason why the live stock man should owe more money on current account than he has marketable live stock among his assets.

The live stock: The statement should schedule the live stock as to kind, age, etc., in order that the banker may know how much of it is readily marketable and how much of the more desirable classes the borrower has. The schedule is also necessary in order to check against current market quotations the values placed upon the live stock by the borrower. The schedule is also an aid to the banker in budgeting the probable future income of the live stock man, and consequently his ability to repay the advances made him within a given period of time. The ages and kinds of cattle owned by the borrower will indicate when the cattle will be available for market and allow the banker to estimate what they will probably bring when sold. If sheep and goats are owned, the schedule enables the banker to estimate the probable wool and mohair clips, the lamb crop and the probable revenue to be obtained from such of the sheep and goats as may be available for slaughtering purposes.

In the case of the cattleman, a considerable amount of live stock may consist of registered or graded cattle. The valuation of such live stock for credit purposes constitutes a serious problem for the banker, for there is no gauge of

what an animal will bring in one transaction from what a similar animal brought in another transaction. There is no ready market for this class of stock, each sale being an individual transaction. Registered or graded stuff, therefore, is of the nature of a slow asset and the advances made against it by the banker must be made with a larger margin than in the case of ordinary beef animals, the market for which is ready and active.

A question of prime importance to the banker is whether any of the live stock have been pledged to other creditors, and if so, full details as to number, age, and kind should be furnished. It may be necessary in those cases where the borrower has no other important basis of credit than his live stock that the banker insist that a count and estimate of value of the stock be made by a party independent of the borrower.

The land: About the same considerations apply with reference to the live stock man's land as apply with reference to the farmer's land. Of course, for every \$100 invested in land, the live stock man will have more acres than the farmer on account of the great difference in value between farm land and ranch land. For this reason the homestead law does not have as material a bearing upon the credit standing of the live stock man as upon that of the farmer.

Contingent liabilities: Often the live stock man's contingent liabilities are very heavy, and since his business is little less hazardous than the farmer's, full information regarding such liabilities should be furnished.

PART TWO

THE FARMING AND LIVE STOCK INDUSTRIES

CHAPTER III

THE TEXAS FARMER

Scope of discussion: It is hardly too much to say that the prosperity of the whole state of Texas is very largely dependent upon the prosperity of the farmer. The really basic industries of the state are four in number: farming, the raising of live stock, lumbering, and the production of petroleum. Of these four, farming is by far the most important, and we shall therefore devote considerable attention to it in this and the succeeding chapter. It is self-evident that every banker with interests in the state should have some understanding of its principal industry — and especially, if he is extending credit to the Texas country bank on the basis of farmer notes pledged as collateral.

We shall first take up for consideration the two most important money crops of the state, wheat and cotton. There are other crops which, particularly with regard to local sections of the state, might be called money crops and which may even be of far greater importance than either cotton or wheat; but we are concerned with the state as a whole, or at least with large geographical divisions of it. There is a very large area of the state in which cotton is almost the only cash crop. There is another area in which both cotton and wheat are cash crops, with cotton the more important of the two. There is still another area in which wheat is the principal cash crop.

The banker is mainly interested in cash crops as distinguished from other crops because it is out of the proceeds from the sale of the cash crops that the advances he has made are going to be paid. While corn is a highly important crop in this state, Texas ranking among the leading states as regards total production, yet very little of it is sold for cash. It is raised to be used as feed on the farm where it is

grown, and not for market. The banker, of course, is very deeply interested in the non-cash crops which the farmer is raising — particularly feed crops (such as corn and oats) and vegetables — for the greater the proportion of his living and feed requirements which the farmer can meet on his own farm, the less dependent he will be upon his banker and the better risk he will be. He will then have to call upon his banker to furnish only the credit necessary to enable him to produce his commercial crops — i.e., he will need only *productive* or *commercial* credit, the only kind of credit, in theory at least, which the commercial banker should be asked to provide.

After completing the discussion of the money crops, we shall proceed to consider some of the more serious economic problems confronting the cotton farming industry of the state. We shall confine ourselves to the cotton farming industry because of its outstanding importance in the economic life of the state. We shall discuss, among other things, the hazards surrounding the business, the one crop system and its results, the farmer's lack of working capital, the use and abuse of credit, and farm tenantry.

A. THE MONEY CROPS — WHEAT *

Area: The map on the following page shows that the boundary of the wheat growing area of the state has, roughly, the shape of a parabola, one branch extending southwestward from Fannin County, and the other southeastward from Sherman County in the extreme northern part of the 'panhandle' of the state. The two branches converge at about the center of the state. The counties with largest acreage and heaviest production are in the shaded section of the map. They are found principally in the 'panhandle' and in north central Texas.

The crop year — time of planting and harvesting: Texas raises winter wheat primarily, and the grain will usually

* See very fine article by Stuart McGregor in the *Dallas Morning News* of February 17, 1924.

grade as 'hard.' The seed is sown in the late fall or early winter, about one and a quarter to one and three quarters bushels being planted to the acre. Texas ranks about seventeenth or eighteenth among the wheat-producing states of the country, and her normal crop of sixteen or seventeen million bushels is harvested for the most part in June. Marketing is at the peak in July and is generally



completed by the end of August. Texas produces only from 70 to 75 per cent of the wheat consumed by her population. The periods of planting and harvesting coincide with the periods when the wheat farmer would increase and decrease his indebtedness at the country bank, and when the country bank would build up and liquidate its line with the city correspondent. The wheat farmer would need accommodation from his bank mainly in the fall of the year when he is breaking and seeding his land and again, temporarily, at the harvest season to purchase sacks, binder twine, etc., and to pay for labor, repairs, and machinery. Of course, some farmers will borrow all through the growing season for the purpose of defraying their living expenses. These men are usually entirely destitute of cash working capital of their own.

Production and farm value of Texas wheat crops: For the last five years the production of wheat in Texas has been as follows:

	BUSHEL	ACREAGE
1921	20,810,000	2,081,000
1922	9,992,000	1,294,000
1923	16,370,000	1,559,000
1924	25,252,000	1,365,000
1925	6,552,000	819,000 *

*U.S. Department of Agriculture figures.

The yield of wheat per acre in Texas, together with the farm price per bushel on the first day of July, August, and September (the period when practically all of the Texas crop is marketed), is given below. A weighted average of the farm price on the days in question has been struck and multiplied by the yield per acre in order to arrive at the approximate gross return per acre which the Texas farmer received. The July and August prices were given twice the weight of the September price, because most of the Texas wheat is marketed in July and August.

If, as often happens in this state, the farmer depends upon the banker to finance the raising of the crop from its plant-

YEAR	PROD. PER ACRE (bu.)	JULY 1 PRICE	AUG. 1 PRICE	SEPT. 1 PRICE	GROSS RETURN (per acre)
1909-14 (average)	13.3	93.0	88.7	88.7	\$12.02
1915.....	15.5	102.8	106.5	95.0	15.92
1916.....	11.0	93.0	107.1	131.2	11.69
1917.....	12.0	220.1	228.9	209.7	26.58
1918.....	10.0	203.2	204.5	205.6	20.42
1919.....	16.5	222.0	217.2	205.7	35.77
1920.....	13.0	253.6	232.2	218.7	30.95
1921.....	10.0	112.2	104.8	101.2	10.70
1922.....	8.0	102.6	97.1	88.1	7.80
1923.....	10.5	95.1	84.2	88.7	9.40
1924.....	18.5	105.8	116.8	114.2	20.70*

* Based on figures to be found on pages 605 and 624 of the U.S.D.A. *Yearbook*, 1923, and page 581 of U.S.D.A. *Yearbook*, 1924.

ing to its harvesting — including the living expenses of the farmer and family during the interval — the importance of the gross income of the farmer to the banker is evident. Since the banker may have to shoulder the gross expense of making the crop, he is interested in the gross income as the source from which he is going to recover the advances made. Owing to the very great risks in the farming business, risks from climatic and price changes and from variations in the quality of land planted and in the ability of the farmers working it, it sometimes happens that gross income per acre is not sufficient to care for gross expense per acre. In that case, whether the banker will have to carry the farmer over will depend upon the extent to which the farmer was able to finance his own operations before calling upon the banker. If the latter had to furnish nearly all the working capital, he would have to carry over into the following year a part, possibly a large part, of the line which had been advanced.

Of course, sound banking would call for a careful study of the gross income figures for a period of years in the case of each farmer seeking financial assistance from the bank, and would restrict advances to an amount not exceeding the figure somewhere between the smallest gross income and the average gross income. This would represent the

maximum advance to be made a farmer with no cash working capital of his own. But a still better measure of the maximum accommodation for which the farmer might justifiably call upon the bank is found in what it costs him to raise a crop, with particular reference to cash costs. The farmer should not ask for greater accommodation than is necessary to satisfy his cash needs in raising the crop.

Cost of production: Unfortunately few farmers keep records of what the production of their crops costs them. And yet in other lines of business accurate accounts of expenditures are regarded as essential. If farm cost records sufficiently simple could be devised and if the value of keeping them could be driven home to the farmer, a great step forward would have been taken toward improving his economic position. He would have a means, not only of gauging the relative adaptability of his land for the crop or crops in question, in comparison with other crops, but also of measuring the efficiency of his methods of cultivation.

From time to time the writer has seen estimates of the cost of laying by and harvesting wheat given by farmers in connection with other information called for on financial statement forms. Some of these estimates have been accumulated and are set out in Appendix I. Owing to inadequate information as to how the farmers reached the estimates, they are of little value.

It is only within the past few years that the United States Department of Agriculture has been compiling crop cost of production figures. These figures appear for the most part only as averages of the individual farmer records obtained by the Department. Owing to the fact that cost figures can vary so widely as between any two farms or any two farmers, it is obvious that no average cost figure can be safely accepted as a guide to what the cost in any particular case is going to be. Nevertheless, the figures on cost of wheat production which follow will add to our knowledge of the subject and as a part of our general background will

COST OF WHEAT PRODUCTION

*Average for 1919 crop in McPherson County, Kansas**

ITEMS	AMOUNT	PRICE	COST
Yield per acre.....	12.7 bu.		
Operating cost per acre:			
Preparation and seeding:			
Man labor.....	4.5 hr.	\$0.36	\$1.62
Horse labor.....	18.8 hr.	.19	3.58
Harvest and marketing:			
Man labor.....	4.8 hr.	.80	3.80
Horse labor.....	8.1 hr.	.20	1.61
Seed.....	1.2 bu.	1.98	2.36
Twine.....	2.8 lb.	.23	.63
Threshing.....	12.7 bu.	.23	2.83
Total above costs (76 per cent of all operating costs).....			16.52
Other operating costs.....			5.24
Total per acre cost.....			21.76
Operating cost per bushel.....			1.71
Rental value of land per acre....			8.44
Cost per acre including rental ..			30.20
Cost per bushel including rental .			2.38

*U.S.D.A. Yearbook for 1921, p. 120 and p. 813.

ITEMS	AVERAGES FOR 1920 WHEAT CROP		
	McPHERSON COUNTY KANSAS	GARFIELD COUNTY OKLAHOMA	WOODWARD COUNTY OKLAHOMA
Yield per acre.....	14.6 bu.	18.4 bu.	9.5 bu.
Operating costs per acre:			
Preparation and seeding:			
Man labor.....	4.5 hr.	4.9 hr.	3.8 hr.
Horse labor.....	18.5 hr.	20.1 hr.	14.4 hr.
Harvesting and marketing:			
Man labor.....	4.0 hr.	4.3 hr.	4.2 hr.
Horse labor.....	7.5 hr.	6.9 hr.	8.3 hr.
Seed.....	1.1 bu.	1.1 bu.	0.9 bu.
Twine.....	2.0 lb.	2.5 lb.	...
Threshing.....	\$2.52	\$4.34	\$2.03
Rental value of land.....	\$10.80	\$9.61	\$3.23
Cost per acre, including rental ..	\$29.72	\$30.81	\$22.16
Cost per bushel, including rental.	\$2.03	\$1.67	\$2.33†

† See 1921 Yearbook, *loc. cit.*, and U.S.D.A. Bulletin 943, which is especially complete. Although land rent was very much lower than in McPherson and Garfield Counties, and although other factors of cost compare favorably, Woodward County, owing to low yield of grain, had higher per-bushel cost than those two counties.

help us to a better understanding of the wheat farmer's position. No studies have been made in Texas. Since 1918, however, a number of studies have been made on farms in Kansas, Missouri, Nebraska, Oklahoma, and other winter wheat states, and since it is probable that experience in Texas was not radically different from that of the states mentioned, cost figures for those states are given herein. Where dollar figures are given, the year or years to which they refer should be kept in mind, for changes in the price level are constantly occurring; therefore, unless those changes are given due consideration, the dollar figures will lose all significance. Where possible, data are provided in terms of physical units — such as hours of man and horse labor, and quantity of materials used. Such data are not affected by price changes.

The foregoing table shows the form in which the wheat farmer could very easily keep data covering his own operations. By charging the going rates for his own labor, that of members of his family, and that of his teams, he can tell whether his operations are profitable. He will also be able to find out at just what points his expenses are heaviest, and, by studying them, he may discover ways of reducing them — thus increasing his margin of profit. By keeping comparative records on various crops, he may learn that over a period of time he can farm more profitably by devoting his land to other uses than wheat raising.

It will be found that the cost of production on a per-acre basis does not vary so widely, either as between farms or as between various years on the same farm, as does the cost on a per-bushel basis. The hours of horse and man labor and the other physical elements of cost in connection with raising the crop may be relatively uniform, but many factors may enter into the situation to cause wide variations in the yield of grain obtained. It is therefore clear that greatly different costs per bushel may accompany fairly even costs per acre. It is the per-bushel cost which determines whether a profit is to be made on each bushel of

wheat sold. Therefore, the farmer should strive to increase his yield per acre.¹

In 1922, 421 reports covering farms in Oklahoma, Nebraska, Kansas, Missouri, and Texas indicated that the average cost per acre was \$15.87 and per bushel \$1.13. Land rent² amounted to \$4.47 per acre or \$0.32 per bushel. The farm value of the wheat was, on the average, \$13.33 per acre, or \$0.95 per bushel. There was a loss, therefore, when all the factors of cost are taken into consideration, of over \$2.50 per acre, or \$0.18 per bushel. This did not represent an actual cash loss, since a large part of the total cost of production did not involve a cash outlay. It does mean, however, that the income received by the farmers from their wheat was not sufficient to pay all cash expenses of production and allow them current wages for their time and the cash rental value of their land.³

In 1923, 745 reports from the South-Central part of the country (which would include Texas) indicated the total cost of producing wheat to be \$18.35 per acre or \$1.41 per bushel. The average farm value of the wheat was \$13.32 per acre or \$1.04 per bushel. Thus, as in 1922, the wheat brought less than it actually cost. Land rent amounted to \$4.50 out of the total cost of \$18.35.⁴

Marketing the wheat: Very little wheat is held by the farmer after it is threshed. He usually hauls it at once to the nearest local market where it will be bought by a local buyer or elevator man. If there is no local elevator in the town, the local buyer will simply load the wheat into cars until he has accumulated carload lots. Then he will ship the grain to some mill, wholesaler, or to one of the larger markets, Fort Worth, Houston, or Galveston. If the wheat is bought by a local elevator, it may be held for a time and sold to a mill, wholesaler or other purchaser. The local elevators are

¹ U.S.D.A. Bulletin 943.

² Represents actual cash rental value or the interest return on the land at the prevailing rate for first mortgages.

³ See 1923 *Yearbook*, p. 648.

⁴ See *Crops and Markets*, vol. 1, Supp. 6, p. 176.

usually locally owned, although there are a few 'chains' of elevators, each 'chain' being owned by one interest. The farmer is paid in cash on delivery — usually by check on one of the local banks. The bill of exchange of the type commonly used in the local buying of cotton (which will presently be discussed) is not widely used in the purchase of grain from the farmer. In some instances, however, mills have local buyers or their own buyers who go into the surrounding territory to buy grain. They draw sight drafts on the mills covering the grain bought. Instead of paying the drafts on presentation, the mills may 'accept' them and the banks carry them as debits to so-called bill of exchange accounts and give the mills credit for them. As will be more fully explained later in connection with the handling of cotton, these accepted sight drafts are merely the equivalent of demand, single name paper, and unless a bank is actually secured by the commodity financed (as very often it is not), heavy losses may result.

The local buyer and elevator receive cash payment for grain, when they in turn sell it to the mill or wholesaler; although, in some cases, the demand bill of exchange is used, as explained in the previous paragraph.

B. THE MONEY CROPS — COTTON

Area: The map on page 51 shows the location of the principal cotton-producing area of the state. Cotton is by far the most important agricultural product of Texas and is more extensively cultivated than any other crop. It is preëminently the cash crop of the state. The area of heaviest production, and the area where cotton has been most successfully grown, is roughly contained between parallel lines running from north to south — the western line or boundary extending south from Wichita County and the eastern extending south from Lamar County. Much cotton is raised east of this area, and, of recent years, an increasing amount has been produced in the region to the west of it — particularly in the 'plains' country and

Season of planting and harvesting: In the southern part of the state, planting begins as early as March 1. By April 1, planting is usually begun as far north as the central part of the state, and by April 15, most of the cotton area has been planted, except those cotton raising counties located in the plains and panhandle sections to the west and north of the principal cotton area, where the season is somewhat later. In those years when spring rains are unusually heavy, it is often necessary to replant one or more times. Replanting may occur as late as the end of May. It is desirable to complete planting operations as soon as possible after the danger from spring frosts is past, in order that the cotton may have a better chance to mature before the boll weevil can work serious damage.

Cotton picking commences as early as July 1st in the southern part of the state, but usually does not begin until August 15th to 20th in the central area. By September 1st to 10th, however, picking is ordinarily in full swing all over the state. In this day of the boll weevil and the consequent necessity of planting cotton as early as possible, the picking is generally completed by the end of the year. September, October, and November are the months of greatest harvest, although in years with a wet fall season, picking may continue over until January of the following year.

The spring planting season marks the beginning of the borrowing operations of a very large number of Texas farmers. It also, in many cases, is the season when country banks begin to call upon their city correspondents for assistance. But inasmuch as it is the practice in this state for the farmer to sell his cotton very shortly after he gathers and gins it, his indebtedness to the country bank and the latter's indebtedness to the city correspondent are reduced or entirely liquidated in the fall of the year — principally in October and November. Thus the planting and harvesting seasons coincide with the borrowing and debt-liquidating periods of the farmer and his local bank.

In Georgia, where there are many warehouses located so as to be readily accessible to the farmer, there is a greater practice of holding cotton by the grower than in this state, where warehouse facilities available to the farmer are very meager. The growth of the coöperative marketing movement is tending in some measure to spread out the normal marketing season over a longer period of the year. But by and large, the farmers sell their cotton during the months of September, October, November, and December, as is seen from the fact that from 1913 to 1923, on an average, 68 per cent of the crop was marketed by farmers in those months.¹ The statement is often made that marketing so heavy a proportion of the crop in so few months depresses prices to the ultimate loss of the farmer. This is one of the arguments frequently made in behalf of the coöperative movement. A study of cotton prices will show that the above statement is really not supported by the facts. The reader is referred to the detailed table of prices of spot middling cotton at New Orleans in the United States Department of Agriculture *Yearbook* for 1923, on page 809. During the fourteen years from 1900-01 through 1913-14, the farmer would have gained on an average less than six tenths of a cent a pound or $5\frac{1}{2}$ per cent by marketing his cotton from January to July instead of from September through December as it was gathered. Interest, storage and insurance charges which would have been incurred in holding the cotton would probably have more than consumed the gain. The supply of cotton from a particular crop is usually so well forecast by and known to the market and the market is so broad that the factors of demand and supply generally have free interplay in determining the price at all times. Therefore, barring unforeseen and usually unforeseeable circumstances, the price paid the farmer during the months of harvest is fairly in line with what he could expect to get if he kept out of the market until the later months, provided all the additional cost factors in

¹ *Yearbook*, 1923, p. 805.

the way of interest, storage, and insurance are taken into consideration.

There are other reasons why many farmers either cannot or should not try to hold their cotton. In the first place, such a holding operation would ordinarily be an outright gamble for them — especially since they would be acting individually. The average farmer has not the training or the equipment to study the market and understand the various factors which influence its fluctuations. Moreover, many, if not most, farmers are indebted to banks and other creditors at harvest time, with the result that a holding movement would, in effect, have to be carried out on borrowed money. Unless a man is peculiarly fitted to engage in speculative operations, it is unwise for him to undertake them on borrowed money. Then, too, in the absence of adequate storage facilities in the country towns of the state, there is no way of properly and safely securing the creditor with the cotton which is being withheld from market. And it is not unlikely that the creditor, whether country banker or merchant, has, in turn, his own creditor back in the city who is pushing him for payment of his debts, and this makes it necessary for him to collect as soon as possible from his farmer client and customer. Finally, it often happens that the borrower holding the cotton fails to sell before the market takes a downward turn, and the creditor will find it difficult to induce him to sell on a declining market. To force him to do so may cost the borrower's goodwill and future patronage.

Production of cotton: Texas produces about one third of the total cotton crop of this country. Acreage, production, yield per acre and price per pound on the farm are given on the following page.

Cotton authorities estimate that over one half the staple produced in Texas and Oklahoma is exported. Foreign spinners have a high regard for the Texas and Oklahoma product owing to its superior adaptability to their needs and uses. It is at once clear, therefore, how deeply interested

the Texas farmer and, consequently, the Texas business man are in the economic and financial welfare of Europe.

Reference is invited to the map on page 51 for details as to those counties of the state which produced 20,000 bales or more of cotton in the crop-year 1924-25. The counties are indicated by an 'x.' It will be seen that, as previously stated, the counties of high production are found in the north-south section running through the central part of the state.

The banker is, of course, deeply concerned in the amount of his farmer customer's production of cotton, since it is from the sale of the cotton that the farmer will liquidate his debt to the bank. Only too frequently the farmer will have borrowed practically the full cost of producing his crop, including the living expenses of his family during the process. In many cases, the proceeds of the sale of the cotton will represent the entire gross income of the farmer. For this reason the following figures on the gross income per acre

COTTON PRODUCTION

YEAR	ACRES*	BALES*	YIELD PER ACRE	FARM PRICE PER POUND
1909-13 (average).....	10,920	3,731	162	12.2
1914-20 (average).....	11,233	3,473	150	20.5
1913.....	12,597	3,945	150	12.4
1914.....	11,931	4,592	184	7.2
1915.....	10,510	3,227	147	11.4
1916.....	11,400	3,726	157	17.7
1917.....	11,092	3,125	135	27.7
1918.....	11,233	2,697	115	28.2
1919.....	10,476	3,099	140	35.5
1920.....	11,898	4,435	174	15.8
1921.....	10,745	2,198	98	17.0
1922.....	11,874	3,222	130	23.9
1923.....	14,870	4,342	146	30.0
1924.....	16,198	4,852	141	22.5
1925.....	17,369	4,100	118	21.0

*In units of 1000. The bales are the equivalent of 500 pounds of lint. No linters are included.

See *Statistical Abstract for 1923*, p. 189, and *Yearbook*, 1923, pp. 799, 806. Also see *Yearbook*, 1924, p. 755, and *Texas Almanac*, 1926, pp. 137-38.

of cotton harvested should be of interest. The income may naturally vary widely from season to season and from farm to farm, depending upon weather conditions, farming methods, market conditions, etc.; but the following figures are given as a sort of average maximum upward limit which a cotton loan might have with any assurance that it could be liquidated out of the proceeds of a particular crop. In practice, it would not be safe for loans even to approximate this limit.

GROSS INCOME FIGURES *

YEAR	YIELD PER ACRE LB.†	WEIGHTED AVERAGE FARM PRICE PER POUND‡	GROSS INCOME (LINT)	APPROX. GROSS INCOME (SEED)	EST. TOTAL GROSS INCOME
1909-13 (average).....	162	12.2	\$19.76	\$3.24	\$23.00
1914-20 (average).....	150	20.5	30.75	6.90	37.65
1921.....	98	17.0	16.66	2.86	19.52
1922.....	130	23.9	31.07	4.16	35.23
1923.....	146	30.0	43.80	6.42	50.22
1924.....	141	22.5	31.73	4.80	36.53

* Based on figures obtained from *Statistical Abstract, op. cit.*, and from *Yearbook, 1923*, pp. 799, 806, and 813, and *Yearbook, 1924*, p. 765.

† This is the yield of lint cotton. Seed cotton will usually run in weight about three times the weight of lint.

‡ More weight is given to prices prevailing during the principal marketing months than to prices in other months.

1. Cost of Production

Elements of cost: While gross income per acre is important as measuring the theoretical maximum limit of a loan if it is to be liquidated from the proceeds of the current crop, the conservative banker will gauge the loan to his farmer customer by the actual need of that customer rather than by his theoretically possible liquidating ability as measured by gross income per acre. The banker is concerned with what it is going to *cost* the farmer to make his crop and with keeping that cost, even in very unfavorable years, below what the crop will bring when marketed. From the social and economic point of view, the cost of producing cotton in-

cludes several factors which involve no direct outlay of cash on the part of the farmer — such, for example, as the labor of the farmer and his family and interest on his capital, assuming his capital to be free of debt. The banker, however, is primarily interested in the direct *cash* cost of producing the crop, and in the long run, he will probably not lose if he advances no more than the actual cash cost of production, because he has the other factors of cost which have been mentioned as a margin. This subject will be dealt with more fully in subsequent paragraphs.

Cotton is a relatively costly crop to produce owing to the large amount of man and animal labor required to cultivate it and man labor to harvest it. The picking of cotton is done entirely by hand. The following table covering a survey of 114 farms in Ellis County, Texas, made in 1914 under the auspices of the United States Department of Agriculture will be of interest. Ellis County is an important producer of each of the crops listed in the table. It is one of the leading cotton producing counties of the state.

PRODUCTIVE WORK UNITS PER ACRE *

CROP	MAN DAYS PER ACRE	HORSE DAYS PER ACRE
Cotton.....	5.65	3.17
Corn.....	1.99	3.27
Oats (grain).....	.78	1.53
Oat hay.....	1.04	1.85
Sorghum.....	2.02	2.94
Alfalfa.....	3.49	4.96
Wheat.....	.72	1.27
Miscellaneous.....	1.09	1.23
Average on all crops.....	4.77	3.19

Cotton requires by far more man labor than any of the other crops and requires also more horse labor than any of the others except corn and alfalfa. Shortly after coming up, cotton must be 'chopped' or hoed which results in thinning out the plants. Later on in the season one or more additional hoeings will usually be necessary, especially if there are

* U.S.D.A. Bulletin 659, p. 50.

heavy spring rains. From four to eight cultivations with a plow or scraper are given the crop by the farmer during its growing period, the number depending largely upon the thoroughness and ability of the farmer. Each of these operations is costly in terms of man and horse labor. It is interesting to compare cotton with wheat in this connection, and reference should be made to the above table. Other than the cost of seed and planting, wheat entails little expense until harvest time.

Cost data: The writer has accumulated considerable data on the cost of producing cotton, some of these being the result of his own research. They are not, however, of such a nature or scope as to permit of generalization. More accurate information as to what it costs a farmer to produce his cotton would be of great value to him and to his creditors. It is unfortunate that the farmer is not taught and encouraged to keep cost records. They would in many instances be a revelation to him and would, no doubt, give a great impetus to more efficient methods of cultivation than prevail at the present time. But there are so many variable factors entering into the cost of producing a crop, as between farms and farmers — such as soil fertility, weather conditions, labor supply, farming methods and capacity of the individual farmer — that it would be extremely dangerous to attempt any generalization from such data as are now available to the banker.

A convenient form for keeping cost figures has been suggested by the Department of Agriculture for the use of individual farmers. The form is reproduced below together with an example from Georgia.

It will be observed that space is provided for noting down the actual physical units of labor and materials entering into the cost of cotton production. This is desirable since dollar values are not always stable and are sometimes difficult to estimate with reference to some of the important factors entering into the cost — such as the value of the labor of the farmer and his family.

COST OF COTTON PRODUCTION IN MITCHELL COUNTY, GEORGIA,
CROP OF 1919 *

ITEMS	AMOUNT	PRICE	COST
Production per acre.....	159 lb.		
Labor:			
Man.....	100 hr.	\$0.30	\$30.00
Horse and mule.....	48 hr.	.25	12.00
Seed (30 lb. to bushel).....	1 bu.	1.35	1.35
Fertilizer.....	292 lb.	.021	6.13
Total above (84.4 per cent of total operating cost †).....			49.48
Total operating cost (100 per cent)...			58.63
Credit for seed.....	300 lb.	.04	12.00
Net operating cost per acre.....			46.63
Net operating cost per lb.....			.29
Rent of land or interest return.....	\$67 per A.	6%	4.02
Total net cost per acre, including rent.....			50.65
Total net cost per pound, including rent.....			.32

* See U.S.D.A. Bulletin 877, p. 362.

† Operating costs represent all costs except interest on land. The remaining 15.6 per cent of operating costs is made up of manure, taxes, insurance, ginning, and overhead.

The table on page 60 is taken from a study of the cotton industry made by the Division of Research and Statistics of the Federal Reserve Board and is based on the official report of the World Cotton Conference prepared in 1921.

The figures in the table on page 60 represent the cost of producing the 1913 and 1920 crops of cotton on a 100-acre North Texas farm cultivated by a tenant farmer operating on the 'third and fourth' plan (which means that the tenant pays as rent to the landlord a fourth of all cotton raised and a third of other crops). The average yield of lint per acre was about 200 pounds, or the equivalent of approximately 600 pounds of seed cotton. The cotton was no doubt mainly sold during the fall and winter of the respective years. If this was done, about 12.5 cents per pound was realized for the lint cotton in 1913 and about 16 cents in 1920.¹ The seed brought about \$22 per ton in 1913 and \$28 per ton in 1920.² On this basis, the total production of lint sold for

¹ Yearbook, 1923, p. 806.

² Ibid., p. 813.

COST OF COTTON PRODUCTION ON A 100-ACRE NORTH TEXAS FARM*

	1913	1920
Labor:		
Two hands for six months.....	\$240	\$840
Chopping cotton twice.....	150	350
Picking 40 bales.....	510	900
Hauling cotton to ginnery.....	48	96
Total.....	\$948	\$2,186
Other:		
Interest on tenant's capital at 10 per cent † ...	144	167
Depreciation thereon at 12½ per cent.....	180	209
Cotton seed (75 bushels).....	150	300
Ginning and baling 40 bales.....	120	320
Stock feed:		
450 bushels of corn.....	225	562
365 bales of hay.....	182	365
Supervision.....	120	180
Total cost.....	\$2,069	\$4,289

*See pages 4 and 5 of pamphlet issued by Federal Reserve Board and entitled *Financing the Distribution and Production of Cotton*, Government Printing Office, 1923. No item for fertilizer is shown in the table, because only a relatively small number of farms in Texas use it.

† See Appendix II for list of the tenant's capital. The list will give some idea of what a cotton farmer needs in the way of equipment to cultivate a given acreage.

\$2500 and the seed for \$440 in 1913 as compared with \$3200 and \$560 respectively in 1920. It would appear, therefore, that before deducting the one fourth share of both lint and seed to be paid the landlord as rent, the tenant made a profit over cost in 1913 of \$871 and a loss in 1920 of \$529. After deducting the landlord's fourth, we find that the profit in 1913 is reduced to \$136 and the loss in 1920 increased to \$1469. This, of course, does not mean that in 1920 the tenant suffered a *cash* loss of \$1469. To the extent that the labor was provided by himself and family, the loss could take the form of a reduced wage — i.e., a wage below what he and his family could have earned by hiring themselves out at the going rate. The reduced wage would be reflected in a lower standard of living. Then there are certain other items entering into the cost which represented no cash outlay during the years in question — for example, interest on the tenant's capital (assuming it to

have been free of debt), and depreciation on his equipment.² The actual cash outlay during the year might have been held, possibly, to the minimum amount required to provide the bare living expenses of the family and such feed for the stock as was not raised on the farm, assuming the family to have been large enough to dispense with the necessity of employing outside labor. Actually, however, we know from the items of cost furnished that some labor was hired and that the cash outlay was in excess of the possible minimum just suggested.

The landlord would pay, out of his fourth of the lint and seed, taxes on the land, interest on any existing land indebtedness, and possibly a small amount for the proper upkeep of the farm and improvements. Whatever remained would represent the return on the landlord's investment in the farm.

The reader will find in Appendix III of this study a table of individual costs of 'laying by' and gathering cotton which were reported on 78 financial statements rendered by farmers in various parts of the state and which have come to the writer's attention. Since no details are given as to just what items each farmer has included in the figures he reported, it is difficult to assign any definite value to them. It is practically certain, however, that the figures are made up almost entirely of actual cash costs and that those costs are mainly wages paid for hired labor. The farmers have apparently included nothing for their own labor or that of their families, or for interest on their capital investment, and it is very doubtful that they have included their cash outlay in the form of taxes and interest on borrowed money (including land indebtedness). In short, a comparison of

² Depreciation of equipment is a very real expense, although it may represent no cash outlay in a given year. In fact, equipment is really an expense paid in advance but capitalized in order that it may be charged out over a period of time. Thus, while the farmer is out no cash in a given year on account of depreciation, he has actually *already* paid out the cash, and if he does not allow for it out of the current crop, he is certainly out of pocket a certain amount.

the figures reported in Appendix III with more detailed cost studies that have been systematically worked out justifies the opinion that the former are principally composed of cash labor costs.

The figures are grouped by years, beginning with 1920 and extending through 1923. Too few individual cases and too few counties are included to make the figures really representative. Moreover, it is clear that only farmers of the better class reported from the fact that the per-acre production given by them is considerably higher than the average for the state as a whole.

Nevertheless, the figures for 1920 indicate an average cost of laying the crop by of \$6.25 per acre, and an average cost of gathering it of \$5. The average estimated yield per acre is 42/100 bales or 210 pounds of lint cotton. The corresponding figures for 1921 are \$5.66 for laying the crop by, \$6.05 for gathering, with an average yield of 44/100 bales or 220 pounds. For 1922 the figures are \$3.70 for laying by, \$4.70 for gathering, with an average yield of 41/100 bales or 205 pounds. Hale County, which enjoys the lower cultivating costs common to the west Texas counties, unduly depresses the average cost of laying the crop by in this year. For 1923 the average cost of laying the crop by amounted to \$4.17, the average cost of gathering to \$3.83, and the average yield per acre to 42/100 bales or 210 pounds.

It may well be said at this point that, from the standpoint of advancing funds to the farmer, the banker is more concerned with the cost of laying the crop by than with the cost of gathering it, because this latter cost will ordinarily be defrayed as it is incurred out of the proceeds of the sale of cotton already gathered. Thus, with the possible exception of small advances at the beginning of the gathering season for the purchase of cotton sacks, the farmer should call upon the banker for no further funds after his crop is laid by.

Since pre-war days, the depredations of insect pests, particularly the boll weevil, have tended to increase costs materially, both by reducing the yield of cotton per acre

and by making it necessary that additional time and labor be put forth on the crop in combating the pests.

Importance of high yield per acre: The importance of a high yield of lint per acre in the profitable production of cotton is clear from certain other data which are available. In Ellis County a survey of 114 farms revealed an average net ¹ cost of raising the 1914 crop of \$20 or 8.3 cents per pound on the basis of an average yield of 241 pounds to the acre.² The crop was sold at a loss, since the prevailing price during the marketing season was only a little more than 7 cents per pound. In 1918 a survey covering over 8000 acres of cotton land in Ellis County revealed a net cost of production per acre of \$36.23, which, on the basis of an average yield of 176 pounds per acre, meant a net cost per pound of 20½ cents.³ The prevailing farm price during the marketing season averaged better than 28 cents per pound, with the result that operations were, on the whole, profitable for the cotton farmer in 1918.

The crop of 1919, however, was produced at a substantial loss in Ellis County, and the figures covering the operations of that year will show just how important it is that a large yield per acre be obtained if a profit is to be had. A survey of the 1919 crop was made by the United States Department of Agriculture and it covered eleven counties scattered over the whole cotton belt. Ellis County, Texas, was one of the counties in the survey. The 1919 crop was practically a failure in the county, inasmuch as the yield of lint per acre was only 80 pounds. The net cost of production per acre was about \$43 and the net cost per pound of lint was approximately 55 cents. The average prevailing farm price of cotton during the marketing season was about 35.5 cents. A heavy loss was sustained. The interesting thing to note from these figures is brought out by com-

¹ After deducting a credit for seed sold.

² The reader will find interesting detailed figures in U.S.D.A. Bulletin 659, p. 53.

³ For detailed figures and an interesting distribution of the expense see U.S.D.A. Bulletin 876, p. 16.

paring the cost of production per acre and the cost of production per pound, with reference to the several counties included in the Government survey. Ellis County had the lowest cost *per acre*, with one exception (Rusk County, Texas), but had the highest cost *per pound*, with one exception (also Rusk County, Texas). On the other hand, Anderson County, South Carolina, had the highest cost per acre of all the counties in the survey — namely, about \$92 — and yet had almost the lowest cost per pound, 32 cents. The reason for the low cost per pound is to be found, of course, in the fact that the average yield per acre was 286 pounds as against 80 pounds for Ellis County.¹ The moral, which is clearly pointed out by the foregoing figures is, therefore, that the yield per acre should be high. This in turn means, for this state, that the farmer should not be so much concerned about planting as large a *number* of acres as possible in cotton, but rather that he should plant fewer acres and farm those fewer acres much more intensively than has been the prevailing custom up to the present time.²

The country banker or other creditor of the farmer should, in the light of what has just been said, be very much concerned with his farming *methods*, with his ability to ob-

¹ See U.S.D.A. Bulletin 877, pp. 360 ff.

² In 1924 and 1925 the Dallas (Texas) *Morning News* conducted a state-wide 'More Cotton on Fewer Acres' contest. The winner of the prize in 1924 produced over 5000 pounds of lint cotton on five acres of land, or more than 1000 pounds or two bales per acre. The season was unfavorable owing to scarcity of rainfall. The net cost of production per pound was 4 cents, and the cotton sold for 23 cents; thus the net profit per pound was 19 cents, or over \$190 per acre.

In the 1925 contest there were twenty-seven producers whose average production of lint per acre was nearly 1250 pounds. The average net cost of production per pound was 4.7 cents. Cotton sold for about 20 cents per pound during the fall and winter. It is interesting to note from the returns of this contest that as the yield of lint per acre decreased the cost of production per pound increased. The fluctuation in yield of lint per acre varied from an average of 1241 pounds for one group with an average cost per pound of 4.7 cents to an average of 133 pounds for the lowest group with an average cost per pound of 21.4 cents.

The average yield of lint cotton per acre for the state as a whole was 141 pounds in 1924 and only 118 pounds in 1925.

tain a uniformly high yield of cotton per acre of land employed and per unit of labor expended. This should be among the determining factors in passing upon the farmer's application for credit. Still, even though the farmer be of exceptional ability and cultivate his land intensively, the vagaries of the weather, depredations of insect pests, unfavorable prices for his product, and other elements over which he can exercise little or no control may cut into his return to the point where, only through a sharp curtailment of costs in making the crop, can he operate at a profit. The farmer does have some control over what he shall actually spend in making his crop, and the proper exercise of this control will often spell the difference between profit and loss. The following quotation from a circular letter to member banks written by Mr. Lynn P. Talley, Chairman of the Board of the Federal Reserve Bank of Dallas in March, 1924, will prove suggestive in this connection:

Unlike the merchant or manufacturer, whose operating policies are predicated upon the inflexible rule that costs must *always* be held down to an irreducible minimum, the farmer usually relies upon the price received for the previous season's crops as the basis for determining the amount of funds he may safely expend during the current growing season. For example, it will be recalled that much of the distress in which our farmers found themselves in the fall of 1914, when the outbreak of the war forced the price of cotton below 7 cents per pound, was largely due to the fact that at the time the crop was planted spot cotton was commanding 12 to 13 cents per pound, and the growers had adjusted their production outlay accordingly. On the other hand, in the spring of the following year, 1915, the prevailing price was only 8 cents per pound, and although the 1915 crop was produced on an 8-cent price basis, the market advanced to 11 cents in the fall and yielded the producers an unexpected return.

Then in 1920 the disastrous cotton history of 1914 repeated itself, when a crop planted while the price was around the 40-cent level was sold on the average at the 15-cent level.

These references to the past would, of course, serve no useful purpose now if it were true that production costs were no more subject to the producer's control than is the price he receives for his product. But so long as the farmer is free to decide (1) the amount

of acreage he can successfully cultivate; (2) whether his crops will be produced by himself or by hired labor; (3) whether he will raise his own living at home, or obtain it by purchase; and (4) whether he will adopt an economical or extravagant standard of living — he cannot escape the realization that his crop production costs are not only well within his power to control, but can actually be predetermined and budgetized.

Since he exercises, therefore, an almost complete control over 'costs,' but can neither control nor foresee the 'price' he will receive, it necessarily follows that the cotton farmer's problems are problems of *cost* and not of *price*.

The cash cost: In dwelling at such length upon the subject of the farmer's cost of producing cotton, we have learned that it is the *cash* cost or outlay that the creditor is primarily interested in, since it is this cost which he is likely to be called upon to advance. The cash cost may be, and usually is, very much less than the actual cost of production, because a large part of the cost, as previously stated, will be represented by labor contributed by the farmer and his family, feed and food raised on the farm, depreciation of the farm equipment, and interest return upon the capital invested. If the farm and equipment are owned free of debt and if most of the food for the farmer and his family and feed for the live stock are raised on the farm, the cash costs of production of cotton, or any other principal crop, may be small, and yet the *actual* costs may be far in excess of the market value of the crop, the difference being found in the consumption of farm products (food and feed) which had a cash value, but which did not have to be bought, and the employment of capital (land and equipment) in the farming operations without receiving any return thereon. If the farmer did not raise his food and feed at home, as is probably true, in large measure, of the average farmer in this state, and on that account obtained credit either at the country bank or country store, he would, in a sense, have borrowed his income or wages in advance. By economizing in his requirements in this respect — i.e., by adopting a lower standard of living — his cash costs, although higher

than in the case above cited, would still be lower than actual costs. The difference in this instance would be found in his taking a lower wage than he could have obtained by hiring himself out at the going rate. Of course, if the crop could be sold at a price above *actual* cost, he would not be the loser by having taken a lower wage than the going rate. He would simply have saved the difference. It is a fact, however, which can be substantiated by statistical evidence in those cases where crop cost surveys have been made, and which has been driven home to the writer by numerous instances of the inability of farmers to pay back to the bank the cash advances made them, that in many cases the cotton raised will not sell for enough to cover actual costs (and often for not enough to cover cash costs). In those cases, the difference between the actual and cash costs will be mainly reflected in a reduced wage to the farmer and his family for their labor and a consequent lower standard of living. Except in the case of crop failure or some other similar misfortune, the reason for the above condition can usually be found in the poor quality of the farmer, or in his ignorance of proper farming methods, or in the interaction upon one another of the various factors which are more or less peculiar to our whole system of farm economy and which will be more fully discussed hereafter.

2. Basis of Extending Credit by Bank to the Cotton Farmer

Needs: Regardless of what the actual cost of producing the crop may be, the farmer would have no occasion to borrow, and the banker no occasion to lend, more than enough funds to care for the farmer's cash costs. This would apply not only to the cotton farmer but to any farmer. But in the case of the tenant especially, and less often in the case of the small landowner, the actual advances by the bank are usually much less than would be required if the farmer and his family were to enjoy a really comfortable standard of living. The banker knows from experience what he may safely

lend (based upon what the farmer will probably raise), and his advances must be governed accordingly, regardless of the fact that the advances so made may not be sufficient to provide more than the bare necessities of life. The fault is not with the banker. It is ordinarily with the farmer, the farmer's methods, and the general system of farming in this state. By farming in such a manner as to increase his yield per acre and per unit of labor expended, the farmer would make himself a better credit risk and entitled to greater credit accommodation. He would also place himself in a position of greater independence of creditors. The practice of crop diversification would decrease his need of credit, because he would raise at home a large part of the food and feed which he now buys with bank or store credit.

In passing upon any particular application for credit, the country banker would consider the size of the farmer's family in order to get an idea of how much would have to be advanced for living expenses. Whether a garden was to be raised by the farmer and whether he had cows and hogs to supply the family with milk and meat would have a bearing upon this point. An estimate would be made of the amount of feed the farmer would have to buy for his stock and of what he would have to pay for hired labor for cultivating the crops. The reader is referred again to Appendix III for the estimates given by a number of farmers as to their cash outlay in laying the crop by. Some country bankers limit advances to a certain amount per acre of cotton, or other principal crop, cultivated — such as \$5.00, in the case of cotton. From the figures in Appendix III it can be seen that the estimates of expense in laying the cotton crop by varied from a maximum of \$15 per acre to \$2 per acre, with about \$5 representing the common figure.

A representative of the writer's bank in a report of a visit he made to a very conservative and well-managed country bank in Hamilton County (central Texas) had the following to say:

Mr. D——, the vice-president, states the reason why his bank is always in good shape is that the management knows what the bank's customers absolutely have to have and will not let them have any more. He says all of the bank's loans are made to men of good character, but even they must put up collateral. He has been here in this bank thirty-five years, and while he has peculiar ideas, he will always operate a good bank. He states that he does not own an automobile and does not have a telephone. He believes that they are both luxuries, and he does not think any one should own an automobile if he has to work.

The principal reason the loans here are not large is that more diversifying is done by the farmers of the bank's trade territory than perhaps in any other section of the state. There is not a farmer in the territory that depends upon one crop. All of them have their living at home and always bring something to town to sell.

It is not surprising to learn that this country banker has borrowed no money since 1907. He knows how to extend properly the credit which is really needed, and he has no doubt played an important part in educating his farmer customers to the advantages of crop diversification.

The extent to which farmers actually borrow and the amount of advances ordinarily obtained from the bank were made the subject of inquiry by ex-Professor L. H. Haney, of the University of Texas, shortly before the World War. His survey covered thirty-five counties in the black land belt of Texas. He estimated from the data obtained that only four per cent of Texas farm owners do not borrow from banks, and that the great majority of those who do borrow seek accommodation every year. Practically all tenant farmers borrow year after year. He found that the average current loan to farmers was about \$300, and that forty-five per cent of the loans made did not exceed \$100. He found also that the tenant farmer seldom borrowed more than \$500, and that the usual loan of this class was less than \$100 in amount. After making due allowance for the difference in price level, the writer is able to state that Professor Haney's figures check with his own experience.¹

¹ See article by Professor Haney in the March, 1914, issue of the *American Economic Review*.

It was brought out in the testimony before the Commission on Industrial Relations at its meetings at Dallas in 1915 that the average tenant farmer with a wife and five children could work 30 acres of cotton and 10 acres of corn, and that to care for his requirements in the way of feed and living expenses, a minimum cash advance of \$375 would be needed over a period of a year.¹

Farmer's ability to liquidate advances made: If a farmer's needs should happen to be in excess of his probable ability to pay, the banker or other creditor would of course not advance sufficient to care for the needs. The ability to pay is the controlling factor in the extension of credit to the farmer. The banker will be familiar with the borrower's past record as a payer. He will know what the borrower usually produces on his farm and what his present crop prospects are. The advance should be based upon the prospective minimum crop returns in order to avoid carrying the borrower over into the next season with an unliquidated balance of bank indebtedness from the current season's operations. The losses which the country bank accumulates are in large measure derived from such carry-over lines.

Security: For his better protection, especially if the farmer is a tenant, the banker will commonly require that the farmer pledge security behind the loan. The collateral generally pledged will be work animals, cows, hogs and work tools and the crops to be raised. A lien on the crops is important, for liquidation, under ordinary circumstances, will come out of the crops, and the banker should assure himself that this source of liquidation is not pledged elsewhere. Recourse will usually be had to the other collateral only after the farmer has given up hope of paying out his indebtedness. This will probably have been the result of several successive unfavorable crop years, and the bank will stand to lose substantially in the heavy accumulated carry-over line, whether it forecloses on the chattels or not. Not

¹ Senate Documents, vol. 27, p. 8966.

infrequently, therefore, the bank will simply take its loss and permit the farmer to retain his chattels in the hope that at some future time he will be able to work out a part, at least, of the charged off indebtedness. The point is, that the work stock, tools and other chattels are not looked upon as a primary source of liquidation of the debt, but are placed in the mortgage to keep the farmer from pledging them elsewhere and thus possibly overextending himself and also to give him a greater incentive to try to pay off his obligation. In the case of tenant farmers, it sometimes happens that a poor crop will so discourage them that they will simply pack up their few belongings and move to another part of the state and leave creditors to care for themselves as best they can. If their chattels had been mortgaged, however, they would have been under a greater inducement to see the thing through and try to work out from under their obligations.

In lieu of, or possibly in addition to, chattel mortgage security, in the case of the tenant farmer, the banker may insist that the landlord endorse the paper. This is quite commonly the procedure in financing croppers, whose live stock and tools are not owned but are furnished by the landlord. They have no basis of credit at the country bank or country store; therefore, the landlord will vouch for them, either orally or by actual endorsement.

Occasionally, in the case of landowners, the bank will take a real estate mortgage to secure indebtedness which has been previously contracted and which has grown beyond the borrower's power to liquidate it out of the proceeds of the current crop. The real estate pledged cannot be the mortgagor's homestead.¹ Often the real estate pledged will have heavy prior liens outstanding against it.

The financial statement: When the borrower is a landowner, the bank may require no security. It may lend him simply

¹ Consists of not more than 200 acres of land with all improvements, or, if town property, a lot not exceeding \$5000 in value with all improvements regardless of value.

on the basis of what the loan officer knows about his personal affairs. Usually each borrowing customer is intimately known to the management of a country bank, and there are very few debts that he owes and very little property that he owns about which the management is not fairly well informed. It is advisable, of course, that the bank have its credit information in concrete form; consequently, the practice of requiring the farmers to file financial statements with the bank is growing.

By referring back to Chapter II, the reader will find a discussion of the usual items to be found on the typical statement of a farmer. The item of real estate, ordinarily farm land, is more important than any other item and will make up the bulk of the borrower's net worth. The banker will be able to check the reasonableness of the valuation placed upon the land by virtue of his familiarity with land values in his trade territory. He will also be in position to judge whether the encumbrance against it, if any, is too heavy. He will be familiar enough with the productive power of the land to know whether, under normal conditions, the farmer will be able to care for his fixed charges, living expenses, and meet his current obligations from year to year. The statement will show the live stock owned and whether there is sufficient feed on hand to care for it during the crop-making period.

It is important, at all times, to bear in mind the fact that 200 acres of land are exempt from execution for debt in Texas, and that a man may have a net worth of perhaps \$40,000 — composed of a 200-acre black land farm free of encumbrance and worth \$200 per acre — and still have no basis of credit except the fact that he is a good moral risk. Of course, if a man is substantial enough to have acquired a 200-acre farm and to have cleared it of indebtedness, the moral risk may be good enough to warrant such advances as the bank will be called upon to make to take care of the farmer's current need of credit for crop raising purposes. In this connection, reference is invited to the following

statement of a farmer living in Kaufman County, Texas, a typical black land cotton farming county:

FINANCIAL STATEMENT OF J. C. C. AS OF AUGUST 19, 1924

Cash.....	\$ 150	Due banks.....	\$ 2,008
Notes due me.....	2,000	NET WORTH.....	49,322
Feed on hand.....	80		
Live stock.....	1,100		
Farm equipment.....	1,000		
Farm land (see schedule)...	40,000		
Growing cotton.....	7,000		
Assets.....	<u>\$51,330</u>	Liabilities.....	<u>\$51,330</u>

Exemptions.....\$40,000 (homestead)
 Contingent liabilities.....NONE
 Life insurance.....\$10,000; payable to estate.

Real Estate Schedule

ACREAGE	LOCATION	IMPROVE'TS	VALUATION	ENCUMBRANCE	TITLE IN—
160	1½ miles north of F——	New 5-room house and barn	\$40,000	none	My name

Observe that the land is clear, but that it is valued at a very high figure, \$250 per acre. At the present time (1924-25) there is very little land, even in the black land belt, that can be sold for \$250 an acre. This farmer may have bought the land during the war years and paid that sum for it, but it is probable that the valuation at which he now carries it is excessive. He has borrowed over \$2000 or \$12.50 per acre from his bank on an unsecured basis. This is not excessive in proportion to the probable productivity of his land, but would seem to be somewhat larger than would be required for his strictly farming needs, even on the assumption that the full 160 acres are in cultivation. He may have used part of the advance for the purchase of live stock or farm tools. Attention is called to the item of \$7000 representing the estimated value of the borrower's growing cotton crop. Of course, this is merely an estimate, and should not be given a definite value and place among the assets. The crop may turn out to be worth much more or much less depending

upon weather and market conditions during the remainder of the growing and picking seasons. The statement is rendered, however, as of August 19th, which is just about on the eve of the picking season, and as of which time an estimate of the value of the crop could be made with greater precision than earlier in the growing season. The crop would be laid by as of the middle of August.

The borrower carries \$10,000 life insurance payable to his estate, which adds to the attractiveness of the risk. On the other hand, practically the entire net worth is made up of the 160-acre farm which would be exempt from execution for debt. The final conclusion would be, therefore, that the borrower is entitled to the \$2000 loan granted, on the assumption that the moral risk is satisfactory, as it probably is. The banker would have to take care, however, that his unsecured advances did not reach proportions which were beyond the ability of the borrower to liquidate them out of the proceeds of a normal crop.

The statement below is also that of a black land farmer. Attention is first called to the large amount of indebtedness which the borrower owes, and this, too, as of the end of the year when most of the cotton has already been gathered. Since none of the crop is shown on the statement as on hand, the presumption is that it has been sold, and that the \$5000 of current debt still outstanding will simply be carried over into the next crop year. It will no doubt have to be increased also in order to finance the new crop. It is practically certain that, even with a normal crop, the borrower will not be able to pay up his current indebtedness next year. He farms (with the aid of tenants) 278 acres of his 310 acre farm. Of this amount, 195 acres are in cotton. Assuming a normal yield of one third of a bale to the acre, the farm will produce 65 bales of lint and 33 tons of seed. At 23 cents per pound (approximately the current price at this writing — April, 1925), the lint will bring \$7475 and at \$35 per ton, the seed will bring \$1155, or a total gross income of \$8630. If we may judge from the number of people living

FINANCIAL STATEMENT OF W. D. M. AS OF DECEMBER 15, 1924

Cash.....	\$ 906	Due 1st Nat'l.....	\$ 2,000
Feed on hand	1,575	Due State Nat'l.....	3,000
Live stock.....	1,790	Farm mortgage.....	13,870
Farm land.....	32,200	NET WORTH	20,101
Town property	2,500		
	<u>\$38,971</u>		<u>\$38,971</u>

Exemptions 200 acres of my 310 acre farm.

I am endorser on notes aggregating \$1000.

I carry life insurance in the amount of \$13,000, of which \$8000 is in favor of my wife, and the balance in favor of my estate.

I have been farming in this community for 15 years.

Real Estate Schedule

ACREAGE	LOCATION	IMPROVE- MENTS	VALUATION	ENCUMBRANCE AMT. DUE	TITLE IN —
310	½ mile west of S——	7 houses and two barns	\$31,000	\$13,870 1927	Me and my mother.
60	¼ mile south of S——	None	1,200	None	Me.
1 acre	In S——	Small house.	2,500	None	Me.

Live Stock Schedule

	HORSES	MULES	CATTLE	HOGS	SHEEP
Number	1	10	7	7	none
Value	\$100	\$1500	\$155	\$35	

Number of acres in farm 310; number cultivated..... 278

People living on farm..... 28; acres in cotton..... 195

on the farm (twenty-eight) and the large investment in machinery and live stock, it is probable that most of the land is being farmed by 'croppers' who pay one half of the crop to the landlord as rent. If this is so, the gross income of the landlord might be as low as \$4315, as against a *carry-over* current indebtedness of \$5000. This calculation leaves out of consideration the additional credit which would have to be advanced to make the next crop, and interest, taxes, and other expenses which would have to be defrayed.

out of the gross income. It would therefore seem probable that a very substantial proportion of the \$5000 indebtedness owing to banks on December 15, 1924, will be liquidated only at a very slow rate.

The main farm is valued at \$100 per acre, or \$31,000, probably a reasonable valuation; but the encumbrance against it is substantial — namely, \$13,870. Interest on this indebtedness at the prevailing rate of eight per cent will amount to over \$1000 a year.

In short, it is apparent that this farmer is in an over-extended condition. His total indebtedness is practically equal to his own net worth. The following points are therefore of prime importance to the banker: Owing to the homestead laws of Texas, this borrower would have very little that could be attached for debt in the event he should be petitioned into bankruptcy. Moreover, the schedule of real estate shows that title to the main farm does not rest solely in him, but that his mother also has an interest in it of an unstated amount. The borrower's statement is therefore misleading in showing the full amount of the value of the farm as an asset to be classed with others which are really his. Finally, the statement indicates that the borrower has contingent liabilities as endorser in the amount of \$1000. The bank should lend to him only on a fully secured basis. The statement does not reveal a condition which would entitle him to unsecured credit.

The credit store: The foregoing paragraphs have dealt with the extension of credit by the country bank and the factors considered by the bank management in passing upon the credit risk. Both landowners and tenants, but particularly the latter, sometimes run accounts with the country merchant and obtain a large part of their supplies directly from him on credit. The accounts will be opened up in the spring of the year and will run until fall, when the crops are harvested, at which time they will be paid off out of the proceeds of the sale of the crops. Store credit is used to a greater extent by croppers than by any other class of

farmers, inasmuch as they have no basis of credit with the bank. The country merchant will finance them, however, because the large margin of profit in the goods sold enables him to bear the risk involved. Store credit is more widely used in east Texas than in other sections of the state. In west Texas it is seldom used. But throughout the state, bank credit has been supplanting store credit in recent years, and the stores have been adopting the practice of selling either for cash or on very short time. This shifting of the credit burden from the country store to the country bank has on some occasions worked a hardship on the bank, due principally to the fact that the consequent increase in the demand for bank credit has been accompanied by no commensurate increase in deposits or capital investment available especially to care for the new business. Where the bank was already carrying as much of the community's credit burden as it conveniently could on the strength of its own resources, the shifting to its shoulders of the load formerly carried by the country merchant has necessitated borrowing and, in some cases, has resulted in the bank's becoming overextended. This has been particularly true in certain sections of the state where several crop failures have occurred in recent years.

3. *Marketing the Cotton Crop*

The primary market: Having traced the method of financing the farmer in his crop operations, we shall proceed with the next step — namely, how his crop is marketed. We shall confine our discussion to the cotton farmer, inasmuch as we have already discussed the method by which the wheat farmer markets his product. The farmer usually hauls his cotton, as soon as it is gathered, to the nearest country town where a market is maintained. Most of the cotton is harvested in the months of September, October, and November, and most of it is likewise marketed during those months. The whole credit system of the state rests on the proposition that debts shall be paid in the fall out of the

proceeds of the crops to be harvested at that time. Moreover, there are few warehouses in this state which are accessible to the farmer. Unless he consigns his cotton to a merchant or factor, he will have no place to store it except on his farm, and will usually, in that event, simply leave it out in his yard exposed to the weather where, in consequence, it will suffer considerable damage.

The farmer generally sells his cotton either to the supply merchant who has, during the preceding crop-growing season, furnished him with the supplies required in making the crop, or to a local cotton buyer operating in the country town. In the former case, the merchant will no doubt have taken a lien on the crop during the growing season, and the cotton will be sold to him in satisfaction of the lien. After deducting the amount of the supplies advanced, the merchant will pay over to the farmer the remainder of the proceeds of sale. A substantial amount of the cotton raised by tenants, particularly croppers, in east Texas finds its way to market through the channel of the country supply merchant.

The local buyer may be either a permanent resident of the country town where the cotton is sold, or he may represent one of the larger cotton firms of Dallas, Houston, or some other important cotton center. In the former case, he will operate for whatever profit he can make as represented by the difference between what he pays the farmer for the cotton and what he sells it for. In the latter case, the buyer will act on orders from the head office. The office will telephone him each day as to the limits within which he must make his purchases, the limits being determined on the basis of the daily quotation for middling cotton of the nearest active future month on the New Orleans or New York cotton exchange.

The country bank will usually be called upon to finance the local resident buyer and may, at times, assist in financing the buyer for the city cotton merchant. In either event, the method used is the same, and is of sufficient importance

to warrant somewhat detailed treatment at this point. At the beginning of the season (from the middle of August to the first of September, depending upon the section of the state), the buyer will arrange with the bank for a line of credit, and will sign a loan contract or collateral agreement giving the bank certain rights, among which is the right to sell cotton held as collateral if the proper margin is not maintained. The margin will be agreed upon and made a part of the contract. Twenty per cent is the common margin requirement. If the buyer has some capital of his own, he will make a deposit in his bank at the beginning of the season, and pay for his initial purchases by checking on his account. After his balance is used up, he will deposit with the bank to serve as margin the tickets representing the cotton bought. Subsequent purchases may be paid for in any one of several ways, but the following two are commonly employed:

A. The buyer and farmer will agree upon the price to be paid for the latter's cotton. The farmer will deliver the cotton to the local cotton yard where it will be weighed and weight tickets issued. These tickets are not receipts and do not carry title to the cotton. They are simply the equivalent of a statement signed by the weigher that he has weighed so many bales for Mr. So-and-So. The farmer will bring the tickets back to the buyer who will write upon them the amount of money to be paid the farmer and will sign them. The farmer will then take them to the local bank, which has agreed to finance the buyer, and the bank will cash them. Of course, the transaction up to this point has simply resulted in an overdraft in the account of the buyer. The bank may carry the buyer on 'open account,' with no other evidence of the advances made than the signed tickets. The buyer may, however, at the close of the day's business come into the bank and cover the overdraft by signing a demand note for the amount of the cotton purchased during the day, the tickets remaining as collateral to the note. Or the buyer may 'accept' the receipts or instruments which the bank had the farmers sign at the time they turned the tickets into the bank and received their money. These receipts are framed in such a manner as to appear to be acceptances drawn by the farmers on the buyer. After acceptance by the buyer, the bank regards them as bills of exchange and charges them to a so-called bill of exchange account.

ing the instrument as simply a cash transaction, and not as a credit transaction in any sense. Of course, if he were a bona fide drawer, and if the bill were a time bill, he would be liable on the instrument until the buyer, who had accepted it, had made payment to the legal holder. But he sees no reason why he should assume any liability as the result of the sale of his cotton, because the transaction, from his point of view, calls for no extension of credit. If the buyer must have credit to carry on his operations, that is a matter for the buyer and his bank to settle. It is clear, therefore, from the manner in which the acceptance arises and from the customary manner in which the farmer looks upon the underlying transaction, that he does not occupy the position of a bona fide drawer on the instrument, and that, in fact, the bank really has only one name paper. Moreover, the acceptances are usually drawn payable on demand. A demand draft is supposed to be paid, rather than accepted, on presentation. Acceptance of such a draft would release the drawer in this state. Therefore, for this additional reason the farmer would not be liable on the demand acceptances which he had signed.

A strict interpretation of Section 5200 of the Revised Statutes of the United States, with regard to the limitation on loans to one customer of a national bank, would result in classifying as excess loans many lines granted to cotton buyers. The above acceptances are clearly not bona fide bills of exchange and thus would not be excepted from the limitations of Section 5200, and unless they could qualify under the commodity loan provision of the law, they would, strictly speaking, come under the usual restriction to ten per cent of the lending bank's unimpaired capital and surplus. The commodity loan provision of the law is to the effect that loans secured by readily marketable, non-perishable staples in process of shipment or properly warehoused, may, under certain circumstances, be made to one borrower in an amount equal to fifteen per cent of the lending bank's unimpaired capital and surplus, in

addition to the usual ten per cent limit.¹ Owing to the absence of warehouse facilities in most primary markets of the state, the country banks really have very little control over the cotton which they have assisted the local buyer to purchase. It is therefore impossible, in most cases, for the loans to buyers to qualify under the commodity loan provisions of the law. Moreover, even if they could so qualify, the amount of advances which the average country bank could make to one buyer on that account, would be insufficient to care for his needs.

One of the principal reasons why the country bank is willing to finance the local buyer, as outlined in the foregoing paragraphs, is that a local market is maintained for the cotton, and the bank's farmer customers are encouraged to come to that market to sell their cotton. Since they must come into the bank to get their money, the bank is in a better position to collect the loans made to them during the crop-growing season than if the farmers had hauled their cotton to some other market. Then, in the case of non-borrowing farmers, the cash which they receive is left on deposit with the bank and becomes a source of profit to it.

The proper and safe method of financing the local buyer is, therefore, a very vital and practical question from the standpoint of the country bank. It seems that a large part of the risk and loss so often incurred in handling the buyer's account at present could be eliminated if the bank would refuse to take on accounts of buyers who were not men of real responsibility and experience. The proper maintenance of adequate margins should at all times be insisted upon, and the holding of cotton by the buyer should be discouraged. It is poor banking to permit a buyer to speculate with the bank's money, particularly when the total advances made him may be a very substantial proportion of the bank's capital and surplus. The writer recalls one case in which a

¹ Under the laws of Texas, a state bank is not restricted as to the amount of advances it may make to one borrower on the basis of readily marketable, non-perishable staples pledged as security.

bank in a middle-Texas town lost \$60,000 in 1921 in one cotton account, out of a maximum advance of about \$140,000. The loss was occasioned by the bank's permitting the injudicious holding of the cotton by the buyer.

The country bank should encourage the establishment of local warehouses, owned and controlled by responsible people. It could then require that the buyer's cotton, held as collateral, be stored in a manner which would take the control of it out of his hands and place it in the hands of the bank where it properly belongs.

The bank charges the buyer interest on the average daily debit balance in his bill of exchange account. As the buyer ships cotton out, he draws drafts on the purchasers and discounts them, with bills of lading attached, with the country bank. The proceeds of the discounted drafts are credited to the bill of exchange account and constitute the funds against which the charges, represented by the acceptances previously discussed are made. The difference between the charges to the account made by virtue of the acceptances, and the credits created through the discount of drafts drawn by the buyer against cotton shipped, represents the profit or loss of the buyer as a result of his season's operations.

Coöperative marketing: The coöperative marketing of cotton has grown considerably in Texas since the movement began in 1921. The Texas Farm Bureau Cotton Association marketed 94,000 bales in the season of 1921-22 as against nearly 300,000 bales in the season of 1924-25. Through the medium of the coöperative marketing association the farmer markets his cotton gradually over the entire crop year, beginning in September. If the movement continues to grow, the present marked concentration of marketing in the fall months of the year will be changed completely, with a very marked effect upon the whole credit system of the state. The extension of credit by banks and by mercantile establishments is now largely predicated on fall liquidation. The farmer is supposed to pay his obligations at that time.

The plan on which the cotton coöperative marketing association operates is based upon a sale contract entered into between the association on the one hand and the farmer-member on the other, whereby the latter agrees to deliver to the former for sale all cotton raised over a given number of years, usually from three to five years. These contracts have been tested and upheld in the courts. The association has the right to pledge the cotton to secure loans.

The member, upon shipping his cotton to the association, may, if he so desires, draw upon the association for a certain percentage of the market value of the cotton, — usually from 50 to 60 per cent. The farmer will discount the draft with his local bank, which will send it with documents attached to the association for collection. The association pledges the documents with its own bank as security for a temporary loan to reimburse the country bank; or, if the draft is mailed directly by the grower to the association without being discounted by the grower's local bank, a check will be mailed directly to the grower. Many farmers do not draw against their cotton, inasmuch as they may be in need of no funds and are in a position to await the periodic disbursements made by the association out of the proceeds of the sale of cotton.

The association obtains funds from larger banks located in the state in which it operates on a note basis, pledging bills of lading and warehouse receipts as security. It will also have available a substantial credit with a syndicate of northern and eastern banks, of which it may avail itself by means of acceptances drawn by it upon the banks comprising the syndicate. Usually the syndicate will have some bank in the state where the association is located to act as custodian of the warehouse receipts and bills of lading making up the security behind the acceptances.

An interesting question arises in connection with the manner in which the association makes payments to its members. If the cotton is not mortgaged, all payments are of course made direct to the farmer by means of checks. If,

however, the cotton is mortgaged, the operation is somewhat more complicated. It is necessary that the association get a release or subordination of the mortgagee's lien, in order that the cotton may be available to pledge with its banks. With little or no difficulty, this is generally accomplished through the device of having the grower make an assignment of his interest to the mortgagee in consideration of which the mortgagee agrees to subordinate his lien. The association will frequently have an understanding with the mortgagee (usually the country bank) whereby disbursements out of the proceeds of the sale of cotton will be made direct to the mortgagee, instead of to the grower, the former settling with the latter after his obligation has been paid.

CHAPTER IV

CERTAIN UNFAVORABLE ECONOMIC ASPECTS OF THE COTTON FARMING INDUSTRY OF TEXAS

A. LACK OF WORKING CAPITAL¹

IN the preceding chapter of this study the point was made that the great majority of the farmers of Texas depend more or less upon the bank or store for operating capital. The conclusions of Professor Haney, based upon his pre-war survey, were given. He stated that practically all tenants borrowed every year, and that only about four per cent of the farm owners did not borrow from the banks.¹ The survey made in 1922 under the direction of the Federal Reserve Board led to the conclusion that 'throughout the entire short-staple cotton region the methods of financing the grower are roughly the same. Reports from all states indicate that only about twelve per cent of the growers are able to finance the entire growing process themselves, though the average is slightly higher in Tennessee and Arkansas. From fifty to ninety per cent borrow in the spring and continue until the cotton is marketed; this practice is greatest in Oklahoma and Texas.'² It is not an exaggeration to say that in many cases, the bank furnishes practically all the operating capital used by the farmer in making his crop, including the actual living expenses of the farmer and his family. Frequently the banks are really in the farming business as much as if they were hiring labor to cultivate land which they owned. The result is that a large number of our farmers in effect borrow their anticipated income in advance and live it up before it has been produced or earned. Those farmers operate one year behind. They do not have any working capital saved up; and, even worse, they are

¹ *American Economic Review*, March, 1914, p. 47.

² *Financing the Production and Distribution of Cotton*, p. 18.

actually in debt at harvest time for the capital used in making that year's crop. Plainly, then, a part of the credit advanced by the bank is not strictly commercial credit or productive credit, but credit which has been used for consumption purposes.

What the farmer does with his profits: When the farmer has a profit as a result of his year's operations — or, better, when the farmer has a margin of cash income above his cash outgo — what does he do with it? Some farmers use it to pay off current indebtedness which may have accumulated during unfavorable seasons in the past. Others use it to apply on land indebtedness. Some invest it in live stock or save it in the form of a savings deposit. No objection can be raised to the use of the surplus in any of these ways. The farmer's equity in his property is increased in each case and his credit strengthened. It is probably safe to say, however, that most farmers do not keep their profits or surpluses in the form of liquid reserves — i.e., in a form in which they could be easily used to care for current working capital needs. In this connection attention is called to how widely the farming business differs from other lines of industrial activity where the units are more scientifically operated. The United States Steel Corporation, for example, accumulated large liquid reserves in the form of cash and marketable securities during the period of the war and thus fortified itself for the depression that came in the post-war years. This policy was followed by many other well-managed industrial and commercial enterprises. They not only saved the surpluses from the fat years to care for the deficits of the lean years, but they invested those surpluses in liquid, readily convertible assets, so that they would be immediately available to care for working capital needs.

The average farmer gives little thought to keeping his surpluses in liquid form. This is partly the result, as Benjamin M. Anderson, of the Chase National Bank of New York, says, of 'prevailing ideals and practices regarding

money matters among American farmers.' ¹ And yet the farmer really needs a financial program shaped along the lines of the better organized industries. Mr. Anderson makes the point as follows:

By and large, agriculture has really greater need for a financial policy which will enable it to meet emergencies than industry has. Agriculture is at the mercy not merely of the markets, but also of the weather and the seasons. Steel will prosper regardless of the weather, if only the markets are right. Agriculture must face both contingencies. The life of the American farmer, even under good market conditions, is notoriously an alternation of good times and bad, of good harvests and bad, of times when money is relatively abundant and times when money is desperately scarce. Under ordinary conditions, it is highly important that the farmer should lay by liquid reserves in good years to enable him to be comfortable in bad years. In emergency times and times of general distress, the possession of such liquid reserves would prevent disaster in large numbers of cases where it is otherwise inevitable.²

The farmer will quite probably invest his savings in land. He is more familiar with land than with any other kind of investment, and for a long time prior to 1921 land values in most sections of the country were increasing. This increasing value would amount to a fairly large return upon his investment, even though the current income from the land might not, of itself, be sufficient to make it particularly attractive in comparison with other investments. Still, however desirable and ultimately profitable the placing of savings in land might be, the farmer's working capital is depleted thereby and his dependence upon banks and other current creditors is not reduced. Frequently, however, the savings which the farmer has to invest will amount to only a very small proportion of the purchase price of the new land acquired, with the result that a substantial burden of land indebtedness will have to be assumed. In view of the additional interest and other fixed charges which are thereby incurred, the farmer's general financial condition may be weakened. Should his purchase have been made during

¹ *Chase Economic Bulletin*, IV, no. 5, p. 4.

² *Ibid.*, p. 8.

a local real-estate boom or during a period of general inflation of land and commodity values, such as accompanied the war, he might easily find his equity dissipated by the subsequent recession of values. The fixed charges that were incurred do not decline in sympathy with the decline in the values of land and products obtained from the land. Just that situation was brought about in this state after 1920. Instead of taking on additional land and assuming substantial indebtedness, the farmer would have fared better by applying his savings on debt already owed. His net worth would have been increased by exactly the same amount in either event, but his fixed charges would have been reduced in the latter case and his credit strengthened.

There are other things besides land, however, which absorb the farmer's surpluses. He enjoys having the luxuries of life as well as the city man. Owing to the fact that he so largely relies upon the bank and store, however, for working capital, it would no doubt be better for him and the community if he would postpone the purchase of automobiles, radios, phonographs, and the like until he has reached a point of greater independence. According to census figures of 1920, the farmers of Texas owned approximately 100,000 automobiles. According to a careful analysis and estimate of the Holland Publishing Company of Dallas (publishers of farm papers), the farmers of the state owned about 200,000 of the 800,000 automobiles in the state at the beginning of 1925. Most of the heavy increase in number has no doubt taken place during the past two years, when crops were very good and prices satisfactory. From figures furnished by the Department of Commerce of the United States on the factory value of automobiles produced annually since 1919 ¹ and from information obtained from automobile dealers as to freight, taxes, and dealer's profit which must be paid by the purchaser in Texas, the writer has made a careful estimate of what the farmer has paid for automobiles purchased dur-

¹ *Texas Almanac*, 1925, p. 191, published by A. H. Belo & Co. of Dallas, Texas, publishers of the *Dallas Morning News*.

ing the five-year period ended January 1, 1925. According to his calculation, the average price paid per automobile purchased during the five-year period was \$750.¹ The net increase of 100,000 in the number of cars in the hands of farmers since 1919 would represent an outlay of \$75,000,000. This figure does not include the value of those cars which displaced cars that were worn out and discarded during the period. A figure of \$80,000,000 would probably be a conservative estimate of what the farmers of Texas have spent for automobiles in the past five years. The story does not end with the mere statement that a large part of the savings of the farmers of Texas have been spent for automobiles. The expense of running the cars is an important factor in any discussion of the farmer's income and lack of working capital. Figures compiled by the Holland Publishing Company indicate that the annual cost of owning and operating the farmer-owned cars amounts to \$65,000,000 at the present time.²

The writer recalls an instance of recent occurrence when he found listed in a chattel mortgage attached to a cropper's note only one cheap motor car and the cropper's half interest in the crop he was cultivating with his landlord's live stock and implements. This particular cropper, instead of trying to raise himself to the share tenant stage in the tenure system by investing his savings in tools and live stock, preferred to remain in the station of a virtual hired hand and enjoy the luxury of an automobile. He is no doubt not the only one of his class who has made that choice.

But the question arises as to what liquid investments are available to the farmer. In this connection it might be said that the country banker has one of his best opportunities to serve his farmer clients and his community. He could

¹ After giving twice the weight to 1923 and three times the weight to 1924 figures that was given to 1920, 1921, and 1922, because of the good crops raised in 1923 and 1924.

² *Farm and Ranch*, April 4, 1925, p. 1, published by Holland Publishing Company, Dallas, Texas. Of this figure, \$35,000,000 represents depreciation, but the remainder represents cash operating costs.

arrange for the purchase of government securities or for liquid short term investments, such as bankers' acceptances or commercial paper. The farmer might be educated to the wisdom of maintaining a reasonable cash reserve with his bank to care for emergency requirements, just as the head of every other well-managed business tries to keep available at all times a minimum cash working balance. The farmer whose yearly profits or surpluses are small and who operates on a small scale should be encouraged to keep a savings account with his local bank, or the bank might issue short-time interest-bearing certificates of deposit which would make the farmer's savings available to him in the spring or summer, when he might need them in his crop operations. Of course, the bank would have to use discretion in investing such deposits with a view to keeping itself in a position to meet anticipated withdrawals. It might well invest in government securities, bankers' acceptances or commercial paper of appropriate maturities. It is at once clear how the economic position of the farmer and the whole community would be benefited by the above program. The country bank would be taken out of the farming business and would extend credit only for seasonal, crop-producing purposes. It would not have to advance *all* of the funds used for those purposes, as it so often does under present conditions; on the other hand, its advances would be made in accordance with sound commercial banking practice — namely, the advances would be in some reasonable proportion to the working capital which the farmer himself contributes to meet his requirements. Credit would be cheaper, because the bank could afford to lower its interest rates owing to the improvement of its risk.

As an alternative to the accumulation of an actual cash or liquid reserve, the farmer might apply his profits on existing indebtedness, thus increasing the equity in his assets and strengthening his credit. In effect, he would be saving his credit and increasing the margin available for use in time of need.

B. THE ONE-CROP SYSTEM

For most of the state cotton is the principal cash crop, and for a large area it is the only cash crop. Some idea of the position cotton holds in the crop system of the richest and most densely populated section of the state may be seen from the following table which is based on a survey of 114 farms of Ellis County.

PERCENTAGE OF TOTAL RECEIPTS FROM DIFFERENT SOURCES
IN 1914¹

	PER CENT
Cotton.....	86.0
Corn.....	2.0
Other crops.....	3.4
Stock.....	5.6
Increase feed and supplies.....	1.3
Miscellaneous.....	1.6

Defects of the system: It is hazardous. The system represents a heavy concentration of business risk. The farmer really has 'all his eggs in one basket.' Just how potentially dangerous such a practice is may be surmised from the fact that, even when the farmer diversifies systematically, his business is peculiarly subject to loss from insect depredations and adverse weather conditions. With only one crop, upon the sale of which he is dependent, not only for his major income but also for the barest necessities of life, the farmer may be bankrupted by one crop failure. The danger of loss from market price fluctuations is also enhanced by the one-crop system. A loss in one crop cannot be recouped from a gain in some other crop.

Many farmers carry the one-crop idea to such an extreme that they do not even plant a garden to supply the table with fresh vegetables; and many of them make no attempt to raise enough feed for their work stock. This is more generally characteristic of tenant farmers, however, than of farmers who own their farms. The statement is justified, nevertheless, that in large measure the Texas

¹ U.S.D.A. Bulletin 659, p. 24.

farmer lives 'out of a paper sack.' He buys from the store many commodities that he could easily produce himself. Mr. Rex E. Willard, agriculturist, in commenting upon the results of his survey of farm management methods on 114 Ellis County farms in 1914, had the following to say concerning the one-crop system:

Even where cotton is the only farm product that can be relied on as a source of income, it is undoubtedly good practice to produce the food and feed required on the farm as largely as possible, and the best farmers do.

In this region, as in all regions devoted to a one-sided system of farming, farmers often neglect the opportunity they have to produce an abundance and variety of food. As a result, the family lives largely on materials bought at the store. This is one of the evils of a one-crop system. Even if it were true, as many cotton farmers claim, that they can raise cotton and sell it and buy fruits, vegetables and poultry and dairy products more cheaply than they could raise them, the fact remains that unless they are produced on the farm the family will not have them in abundance, and what they do buy is not of as high quality as that produced at home.¹

And, it might be added, whether the farmer can produce cotton and buy the other commodities to advantage depends upon whether he really produces a crop and whether he can sell the crop at a profit. A large part of the uncertainty on this score is obviated by raising food and feed crops at home.

Under the direction of Mr. W. C. Funk, an investigation of what the farm contributes directly to the farmer's living was made in selected counties of various states for the Department of Agriculture in 1913. One of the counties included in the survey was McLennan County, Texas, a typical cotton county of the black land region of the state.

The most important items contributed by the farm to the family living were as shown in the table on page 94. Both on a per family basis and a per person basis, Texas, as represented by McLennan County, compares unfavorably with the other sections of the country and particularly with

¹ U.S.D.A. Bulletin 659, p. 24.

AVERAGE ANNUAL VALUE OF FOOD, FUEL AND SHELTER FURNISHED
PER FAMILY AND PER PERSON IN THE FAMILY *

STATE	NUM- BER OF FAM- ILIES	PER- SONS PER FAM- ILY	FOOD		FUEL		SHELTER		TOTAL	
			Per Fam- ily	Per Per- son	Per Fam- ily	Per Per- son	Per Fam- ily	Per Person	Per Fam- ily	Per Per- son
North Carolina..	55	4.5	\$331	\$73	\$42	\$ 9	\$56	\$12.5	\$429	\$95
Georgia.....	50	5.4	376	70	52	10	92	17.0	520	96
Texas†.....	44	5.3	276	52	4	1	83	15.5	363	68
Average for all areas visited‡.	48	4.6	261	57	35	8	125	28.0	421	92

* *Op. cit.*, p. 18. The item of shelter is figured on the estimated actual value of the house; 10 per cent being taken to cover depreciation, repairs, and interest.

† McLennan County.

‡ Counties in Vermont, Wisconsin, New York, Pennsylvania, Ohio, Iowa, and Kansas, in addition to states separately shown.

the other southern states. The farm in 1913 contributed only \$52 of food per person in Texas as against \$73 in North Carolina and \$70 in Georgia and \$57 as the average for all the states. In spite of the comparatively unfavorable showing made by Texas, a contribution by the farm of \$68 per person or \$363 per family was probably no inconsiderable part of the farmer's total income in 1913.¹

Mr. Funk found that the value of the food consumed per farm family on the Texas farms was \$489 as against an average of \$412 for all farms reporting. Approximately 44 per cent of the total consumption on Texas farms was purchased as compared with 37 per cent for all farms and only 18 per cent and 22 per cent for North Carolina and Georgia respectively.² The following table shows the relative proportions in which the several classes of food are produced and purchased. Texas makes an especially unfavorable showing with respect to fruits and vegetables.

While, owing to droughts and hot weather, Texas may be

¹ Reports from 1282 farms in the south-central section of the United States, which would include Texas, showed an average gross farm income in 1922 of \$1900, of which \$300 represented the estimated value of food and fuel produced and used on the farm. The average *net cash* income was \$631, or only a little more than twice the value of the food and fuel produced on the farm. — *1923 Yearbook*, p. 1161.

² *Op. cit.*, p. 7.

PROPORTIONS OF VALUE OF FOODS BOUGHT AND FURNISHED
BY THE FARM *

STATE	GROCERIES		ANIMAL PROD.		FRUITS		VEGETABLES	
	Bot. (per cent)	Furn. (per cent)	Bot. (per cent)	Furn. (per cent)	Bot. (per cent)	Furn. (per cent)	Bot. (per cent)	Furn. (per cent)
No. Carolina.....	76.0	2.4	2.7	97.3	2.0	98.0	3.9	96.1
Georgia.....	89.7	10.3	5.7	94.3	10.9	89.1	1.0	99.0
Texas.....	98.7	1.3	14.2	85.8	98.9	1.1	66.1	33.9
Av. for all areas visited....	94.4	5.6	16.5	83.5	33.4	66.6	21.8	78.2

* *Op. cit.*, p. 9.

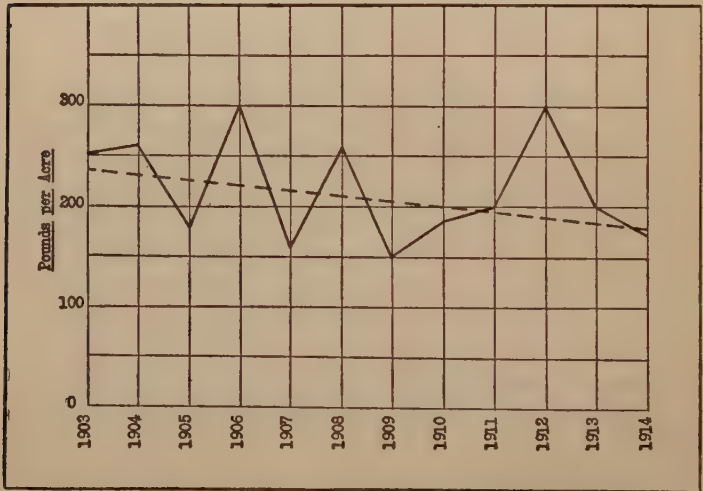
relatively less adapted to the culture of vegetables and fruits than the other states included in the survey, yet it cannot be said that the unfavorable showing of Texas is really due to that fact. The one-crop system is mainly responsible. The average Texas farm could produce a far larger proportion of the family's food requirements than it actually does.

The increased risk entailed by the one-crop system is naturally reflected in the price which the farmer must pay for credit. It has been the writer's experience that very few farmers borrow at a rate less than ten per cent per annum and many pay considerably in excess of that rate. This point will be dwelt upon in somewhat more detail in connection with the tenant problem. It is not surprising, however, that in those numerous cases where the bank (or store) furnishes *all* the working capital (including feed and living expenses) which the farmer uses during the year, an interest charge of from ten to thirty per cent cuts heavily into his income and constitutes a serious obstacle to his getting ahead — especially if his crop is short or the price obtained for it unsatisfactory. One way for the farmer to reduce the amount of interest paid (and also, possibly, the rate) is to reduce his need of credit. This could be done to a substantial degree by raising feed for stock and food for the family at home.¹ To this extent at least the income of

¹ Texas farmers spent over \$60,000,000 for feed in the census year of 1919 — the great bulk of which was spent outside the state.

the family would not have to be borrowed from the bank or store in advance of its having been earned. Nor would the farmer necessarily have to curtail his production of cotton in order to raise food and feed crops. By improving his farming methods and concentrating his efforts on building up his per-acre yield of cotton, he would no longer be under the necessity of planting his entire farm to that crop to make a given production.

The one-crop system has the effect of mining the soil and sapping its fertility where, as in this state, very little fertilizing is done. The United States Bureau of Crop Estimates has assembled data on the variation of the yield of cotton per acre in Ellis County and has prepared the following chart:



VARIATION IN YIELD PER ACRE OF COTTON FROM
1903 TO 1914

The solid line shows the yield variations from year to year, and its very irregular course is accounted for mainly by climatic and other conditions over which the farmer has no control. The broken line, however, shows the average

tendency of the yields from 1903 to 1914, and shows that the yield is decreasing. It is this downward tendency which should be of vital concern to the farmers of the state, for it would seem that at the present rate the farming industry should at no distant time reach a point where it cannot be sustained by the one-crop system. Marlboro County, South Carolina, long ago reached the point where continuous cotton culture, with no attention given to preserving soil fertility, had become unprofitable. The farmers of that county began the use of commercial fertilizers and the practice of returning as much vegetable matter to the soil as possible in order to build up its humus content. The beneficial results have been marked. The soils of the county have a high yielding power.¹ From a study of the soils of the black land belt (of which soils those of Ellis County are typical), it appears that the element of fertility which is mainly lacking is nitrogen. The application of commercial nitrates or the planting of legumes in the fall to be turned under the following spring would meet the need of the country. During the contest conducted by the *Dallas Morning News* in 1924, one contestant in Red River County put over 2000 pounds of fertilizer on each acre entered by him in the contest, and his results were such as to yield him a handsome profit on his venture.

Finally, the one-crop system often results in the inefficient employment of both man and animal labor. The survey of the 114 Ellis County farms showed that the average horse worked less than eighty days each year, which of course added greatly to the cost of a day's work per horse.² A somewhat similar situation existed with respect to man labor. There is frequently too much work at certain seasons of the year and not enough at others. It is only when cotton is selling at a relatively high price that such disadvantages can be overcome.

¹ U.S.D.A. Bulletin 659, p. 33.

² *Ibid.*, p. 27.

C. FARM TENANCY

Farm tenancy as a system of tenure is not *per se* an undesirable thing necessarily, but as it exists in Texas there are many conditions surrounding it which make it in some respects socially and economically undesirable. The evils associated with tenancy in this state are not in all cases peculiar to it, but are often characteristic of landowners, although generally in less degree. Those features of farm tenancy which are not socially desirable are in some measure the cause and in some measure the effect of other phases of the farming system of the state, taken as a whole. The one-crop system, for example, fosters the uglier aspects of tenancy, and tenancy aggravates the evil consequences of the one-crop system. It should be borne in mind constantly during this discussion that there are a great many tenants in Texas who are tenants from choice and who are intelligent and efficient farmers and first-class citizens of the state. Nor can it be definitely said that, from the standpoint of efficiency in crop production, the landowner obtains a higher yield per unit of land, labor, and capital than the tenant. It is probably true, however, that the tenant mines the soil to a greater degree than the landowner, because about the only interest the former has in the land is to get as much out of it as he can in the time that he has the use of it.

Extent of tenancy: In 1920, according to Census figures, there were more than 436,000 farms in Texas, of which nearly 233,000 were operated by tenants. The remainder were operated by owners. There are very few cash tenants in this state. The usual tenant may be classified as either a share tenant or a share cropper. The share tenant furnishes the farm tools, work animals and supplies necessary to carry on the crop operations, and the landlord furnishes only the land. As rent, the tenant generally pays one third of the grain and one fourth of the cotton. The cropper is little more than a hired hand, and is usually closely supervised by his landlord. The landlord furnishes all tools, work animals, feed, and seed, and the tenant provides only

the food and clothing which he and his family require. Frequently, even the food and clothing may be purchased on money or credit advanced by the landlord, to be repaid out of the tenant's share of the crop. As rent, the tenant pays one half of all crops raised. Ordinarily the croppers are either negroes, Mexicans, or the poorer class of white tenants.

The following figures show the percentage of total farmers in the tenant class for the United States, Texas and Georgia (which has a higher percentage of tenancy than any other state in the country). The figures are from the United States Census.

YEAR	U.S. (per cent)	TEXAS (per cent)	GEORGIA (per cent)
1880.....	25.6	37.6	44.9
1890.....	28.4	41.9	53.5
1900.....	35.3	49.7	59.9
1910.....	37.0	52.6	65.6
1920.....	38.1	53.3	66.6

Of the 232,500 farms operated by tenants, approximately 177,200 or 76.3 per cent are operated by white tenants and 55,000 or 23.7 per cent are operated by negroes. The white tenants are scattered over the entire state, while the negro tenants are found mainly in the old plantation country of east Texas and in the Red River, Brazos and Trinity River bottoms.

The following census figures will show the number of farms and acreage operated by croppers and share tenants. The croppers farm a little more than 20 per cent of the improved land of the state, farmed by tenants.

	NO. OF FARMS IN STATE	ALL LAND IN FARMS*	IMPROVED LAND IN FARMS*
Total for state.....	436,033	114,021,000	31,227,503
All tenants.....	232,309	31,443,615	15,008,489
Croppers.....	68,381	4,867,528	3,317,983
Share tenants.....	142,641	16,813,089	10,204,569

*In acres.

Twofold function of the tenancy stage of farm tenure: Tenancy is a stepping stone to farm ownership. The 1920 Census figures show that 68 per cent of the owner-operators of farms have passed through either the cropper or share tenant stage, and many have passed through both. The cropper stage is the lowest and the one in which many farmers begin their operations. The natural sequence is from cropper to share tenant to owner.¹

In the process of climbing the tenancy ladder to farm ownership, a constant shifting of the candidates, so to speak, is taking place. The less efficient are pushed back in the struggle upward, with the result that a large number of croppers will be found to be men who at one or more periods in the past were share tenants or, possibly, owners. Thus the cropper stage will contain not only a large body of beginners in the farming industry but also many cast-offs from the upper stages.

Certain socially undesirable aspects of tenancy:

(1) *Shifting:* Tenants in the cotton sections of the state have little to attach them to a given farm. Their rental contract is generally oral and grants them occupancy for one year only. Perhaps this is due to the fact that practically all farm undertakings are completed within a year. These conditions invite frequent moving on the tenant's part. Moreover, landlords can change tenants without undergoing any serious inconvenience, and often ask them to move for little or no reason. As a result, the connection between landlord and tenant is not very close, and neither feels that he is particularly interested in or under obligation to the other.

From data accumulated in six representative counties of the black land section of Texas in 1919, it was found that 62 croppers, who were interviewed during the survey, reported an average of less than two and a half years between shifts from one farm to another. The average for 191 share tenants was about three and a half years.² The 1920 Census figures show that approximately 219,000 of the

¹ *Yearbook*, 1923, p. 555.

² U.S.D.A. Bulletin 1086, p. 49.

233,000 tenants gave intelligible answers to the following question: 'How long have you lived on this farm?' Approximately 116,000, or over 53 per cent of the number reporting, answered that they had lived on the farms then occupied by them for one year or less; 63,000, or 29 per cent, stated that they had occupied their farms from two to four years; 25,000, or 12 per cent, had lived on the same farm from five to nine years; but only 14,000, or less than 7 per cent, had lived on the same farm for more than nine years.

This roving tendency of so large a part of our farming population is one of the most serious faults to be charged against the agricultural system of the state. In the first place, it is extremely difficult to establish the very much needed practice of diversification in this one-crop country, when the tenure of so many farmers is so uncertain and of such short duration on the average. The tenant, not knowing at any one time where he will be at the corresponding time the following year, is not going to concern himself with maintaining the fertility of his landlord's farm, but he is going to work that farm for what he can get out of it in the way of cotton, the cash crop, while he is on it. It requires a more or less stable form of tenure for the successful operation of a system of diversification. Moreover, one of the principal links in the chain of diversification is the production of live stock, not only on account of the revenue to be derived from the sale of live stock and live stock products, but also on account of the fertilization of the soil to be accomplished through it. It is an obviously impractical idea that the roving tenant, who moves about every year or two, is going to burden himself with any more chattels of as cumbersome a nature as live stock than he absolutely has to have for the actual tilling of the soil. Though more than half of the farms of the state are operated by tenants, yet the Census figures show that less than one third of the dairy cattle and less than one third of the swine are found on those farms.

Not only does the present rent contract and the generally

unstable nature of the tenant's tenure operate to deaden his interest in the welfare of the farm he is working and in the landlord who owns it, but the landlord himself is made indifferent to the welfare of the tenant and to the proper upkeep and improvement of the farm. He does not know from one year to the next who will be on his farm or the ability of his tenant. He will not be interested in adding to his investment when there is so much uncertainty as to whether it will be worth while.¹

The effect of the shifting process upon the tenant's accumulation of live stock has been pointed out. The fact that it operates to restrict such accumulation is one of the principal reasons why the tenant finds it difficult to progress up the tenure ladder to the position of landowner. One of the readiest means of storing up savings and having them grow into the sizable sum required to purchase a reasonable equity in a small farm is to invest the savings in good live stock. The increase from the live stock under proper care and management will soon add appreciably to the farmer's net worth. Aside from the shifting process already discussed, there is another feature of the tenancy problem which militates against the accumulation of live stock by the tenant. There is the lack of adequate pasturage and frequently the objection of landlords to the raising of the necessary feed.

The characteristic one-year rental contract and the other causes of the perennial shifting of tenants react to the social

¹ 'If some legal provision were made for the compensation of tenants for improvements put on the farm with the landlord's consent, the present problem of tenant housing would be less acute, landlords would not so often be accused of lack of interest in this problem and the mutual interest in the farm arising from a joint ownership of improvements would make for a more stable and reliable tenantry. Moreover, with such a provision, tenants would be able to invest their savings in the farm business, which is possible only to a limited extent with the prevailing crop and renting system. This lack of opportunity to accumulate gradually by increasing their investment in the farm constitutes one of the most serious drawbacks to the tenure and financial progress of the tenant in the black land areas.' (U.S.D.A. Bulletin 1068, p. 21.)

detriment of the entire state in another respect which may well give cause for considerable apprehension. Since the removal of the tenant takes place generally on or about January 1, the attendance of his children at school is interrupted at the most inopportune time. The children are taken out of school in the middle of their work and often transplanted to an entirely new community, and put into a new school with new teachers and, possibly, new or different studies. Aside from the injurious effect which this has upon the actual instruction that the children get, there must be a serious undermining of their morale in being bandied about as they are. As a result of the shifting and the fluctuating school enrollment and the irregular attendance on the part of tenant children, the showing which they make in grade attainments and promotions compares unfavorably with that of the other children.¹

The discussion of the unstable tenure of tenants in this state may be concluded by saying that it tends to make the tenant less interested in the welfare of his community than he should be, as a good citizen. It deadens his ambition and makes him shiftless.

(2) *The one-crop system*: It is not proposed to repeat here what has been said elsewhere regarding the one-crop system. Owner-operators are almost as responsible for fastening the system upon the state and perpetuating it as the tenants. The following table is taken from the report on the survey of a number of counties in the black land belt previously referred to.²

Over half of the croppers have from 90 to 100 per cent of their crop acreage in cotton, and not more than 13 per cent of all tenants, regardless of class, have less than 50 per cent of their crop acreage in cotton. The showing is somewhat more favorable for the owners. They have a larger percentage of crop land planted to small grain and less to cotton than the tenants. It would appear, therefore, that while

¹ For detailed discussion see Bulletin 1068, p. 58 ff.

² *Ibid.*, p. 19.

PROPORTION OF ALL FARM LAND IN CROPS, PROPORTION OF ALL CROP LAND IN VARIOUS CROPS, AND OPERATORS CLASSIFIED BY THE PERCENTAGE OF ALL CROP LAND PLANTED TO COTTON, BY TENURE CLASSES FOR 368 OPERATORS

TENURE STATUS	PER CENT OF LAND IN CROPS	PER CENT OF ALL CROP LAND IN —				PER CENT OF ALL OPERATORS WHOSE PER CENT OF COTTON ACREAGE TO ALL CROP ACREAGE IS —			
		Cot-ton	Corn	Small grain	Other crops	90 or above	75 to 90	50 to 75	Below 50
Croppers.....	92.2	78.7	13.4	5.5	2.4	52.3	24.6	20.0	3.1
Share tenants.....	91.3	67.1	12.9	15.9	4.1	1.6	29.0	59.6	9.8
Owners.....	85.9	62.5	16.0	16.2	5.3	—0—	13.4	64.6	22.0
All operators.....	87.6	66.0	13.6	16.1	4.3	10.1	23.5	53.6	12.8

there is no concerted attempt on the part of farmers of any class to conserve the fertility of the soil, the owners probably go further in this direction than the farmers of other classes, because they alternate grain crops with cotton to a greater extent than tenants.

The effect of the one-crop system in decreasing the fertility of the soil has already been dwelt upon (*supra*, page 96), and some mention was made of its greatly increasing the hazardous character of the farming business. The result of the increased hazard in increasing the cost of credit was pointed out. We shall now discuss somewhat more fully what the farmer, and particularly the tenant farmer, pays for his credit.

(3) *The high cost of credit:* The results obtained by Professor Haney in his study of the tenant situation in this state indicate that 75 per cent of all the farmers of the state borrow regularly year after year, and nearly all tenants borrow, most of them borrowing every year. Professor Haney reached the conclusion that more than 50 per cent of the average country bank's loans are made to tenant farmers.¹ The following is taken from his testimony before the Commission of Industrial Relations during its sittings at Dallas in 1915:

¹ Sen. Doc., vol. 28, p. 9149, First Session, Sixty-Fourth Congress.

But are these amounts not small in proportion to the business done, you ask? Of the 20 tenant cases I have been able to study intensively, the total amount of credit was, in 1913, over one third of the gross income; in 1914, over three fourths of the gross income. Five out of 20 in 1913 borrowed 100 per cent or more of the total gross income for the year. In 1914 I believe nearly one half of all tenants borrowed as much as their total gross income amounted to. But are not these loans for capital account, asks some business man, and are they not an indication of increased earning power in the future? They are largely for capital; but for circulating capital, and when the considerable proportion of loans made for carrying over past debts and for consumption is remembered, we see that the situation is unsound.¹

A study made of farming credit in Texas by Mr. Walton Peteet of the Extension Service of the Agricultural and Mechanical College of Texas in 1917 revealed the fact that the price paid by the average farmer for credit for crop-raising purposes was unbelievable. The rate paid varied from 10 per cent to as high as 60 per cent, depending upon the standing of the debtor, his system of farming, geographical location, and competition among lenders. The rate was highest in the small farm districts of east Texas and lowest in the cattle and wheat regions of west Texas. It varied widely, however, in each district. The trucker or dairy farmer of east Texas paid less for credit than the all-cotton farmer, and the all-wheat farmer of the west paid more than the farmer-stockman of the same territory. The maximum price was paid by the all-cotton tenant farmer who gave a mortgage on his live stock, tools and crops, and the minimum price was paid by the landowner who practiced diversification and borrowed from banks on his unsecured note.²

The farmer may borrow from supply stores in the form of supplies purchased on credit or he may borrow from banks and pay cash for his supplies, or he may use both

¹ Sen. Doc., vol. 28, p. 9152. First Session, Sixty-Fourth Congress.

² *Farm Tenantry in the United States*, Bulletin 278, Texas Agricultural and Mechanical College, April, 1921.

sources of credit. As pointed out elsewhere in this study, the credit store is gradually giving way to the bank, and the ultimate result may be that the latter will become the source of practically all credit extended the farmer for the purpose of carrying on his current operations. The credit store is still an important factor in the situation, however, particularly in east Texas, and we shall discuss briefly the prices which the farmer pays for credit obtained from that source. A common practice is for the farmer, usually a tenant, to go to the storekeeper in the late winter or early spring and ask 'to be carried' until November, when most of his crop will presumably have been gathered. If he wants \$300 worth of supplies, he will give his note, say, on January 1st for that amount plus interest payable on November 1st. This note will bear interest at ten per cent from January 1st until November 1st, but the farmer will draw out supplies from the store only at the rate of, say, \$30 a month. It is therefore clear that while he is paying ten per cent on \$300 for ten months, he actually has the use on an average of only \$165 for the full period. The price that he really pays for the credit extended by the store would be twelve per cent if he had the use of the \$300 for the entire ten months; since he has the use on an average of only \$165 for that period, however, he actually pays at the annual rate of more than twenty per cent. On top of this, he may have to pay a higher price for the goods he buys from the store than he would if he were paying cash, although this practice is not so prevalent in Texas as in some other parts of the cotton belt.¹

Mr. Peteet's investigation in 1917 revealed a very considerable difference in east Texas between cash and credit prices of some supply stores. He found by comparing the prices paid by 19 typical farmers in one representative east Texas county who traded on credit with the cash prices paid in the local town market that the prices of 11 staple articles of food and feed were 55 per cent higher than cash prices. The maximum credit price of these 11 articles was

¹ Sen. Doc., vol. 28, p. 9046 — Professor Leonard's testimony.

found to be nearly 90 per cent higher than the cash price, and the minimum was nearly 34 per cent higher. The following table shows the average price paid for various articles by credit purchasers and the cash quotation in the trade center of the county where the data were obtained:¹

COMPARISON OF CASH AND CREDIT-STORE PRICES IN A TYPICAL
EAST TEXAS COUNTY — 1917

ARTICLE	CASH PRICE	AVERAGE CREDIT PRICE	EXCESS: CREDIT OVER CASH (per cent)
Flour — high grade.....	\$1.90	\$2.60	37
Flour — low grade.....	1.70	2.44	43
Sugar (per 10-lb. sack)...	0.71½	0.91	27
Bacon (per lb.).....	0.14½	0.20	37
Lard (per 10-lb. tin).....	1.00	1.98	98
Meal (per sack).....	0.75	1.15	54
Corn (per bushel).....	0.95	1.35	42
Hay (per 100-lb. bale)...	0.40	0.70	75

It is to be expected that the merchant will charge more for goods when sold on credit than when sold for cash. It is also to be expected that rates of interest will vary in sympathy with every condition affecting the credit risk. The personal character of the tenant, or other farmer, his business ability, his thriftiness, and the methods and character of his farming, the size of the loan, and many other factors enter into the interest rate. The store or other creditor is not to be censured, necessarily, but the system which fosters the condition above outlined is certainly worthy of careful study to the end that it may be improved. With the credit obtained by the farmer amounting in many cases to a very large percentage of his gross income (and in some cases to more than gross income), it is clear that the extremely high price which he pays for his credit accommodation is one of his greatest deterrents to progress. As President Bizzell, of the Agricultural and Mechanical College of Texas, has pointed out, a large labor income

¹ *Farm Tenantry in the United States*, p. 211 ff.

will not make home ownership possible if it is consumed by the high cost of credit and other abnormal expenditures.¹

Bank credit also is high. Mr. Peteet found, in the course of his investigation, that interest rates on bank loans for crop-making purposes varied from 10 per cent per annum to more than 60 per cent per annum. The maximum rates were paid by small farmers on loans of small amounts and of short maturity. The general level of interest rates corresponded more or less with the general level of credit prices to farmers, and was highest in districts of east Texas and lowest in north and west Texas where the store credit system has largely disappeared. It is a quite common practice for the banker to add 10 per cent to the face of the note almost regardless of the maturity. Many farmers think they are paying 10 per cent interest per annum. They are, of course, paying a great deal more, depending upon the length of time they have the use of the money. The high rates charged by the banker are occasioned by the fact that his risk is great. Substantial losses are often incurred in extending credit to tenant farmers who usually are of very limited means. The interest charge must be high enough to cover the losses and return a profit on the stockholders' investment. There are a great many banks in Texas that have paid no dividends since 1919 — not to mention the very considerable number that have failed since that time.

In Dr. Bizzell's judgment there are two detrimental results growing out of the prevailing practice of extending credit to the tenant, whether by the store or by the bank:

(1) In the first place, the debt is incurred mainly to defray running expenses, which means that the credit is used for consumption as well as for production purposes. It is in this respect that the farmer's loan differs from the ordinary commercial loan.

(2) In the second place, the general conditions under which the tenant secures a loan compel the creditor for safety to restrict it to as low an amount as possible. The result is

¹ *Farm Tenancy in the United States*, p. 211 ff.

that the tenant's standard of living is low. His family is often undernourished. The labor and farm income frequently is used in meeting obligations growing out of misfortune and unforeseen circumstances.¹

(4) *The tenant as an accumulator of wealth:* The high cost of credit is one of the principal obstacles to the accumulation of wealth by the tenant. Such data as we have on the farm and labor income of the tenant would give promise of his ability to acquire a farm and accumulate wealth in other forms. The price he has to pay for credit, however, due to the risk attaching to his methods of farming and the conditions under which it is carried on, cuts so heavily into his income as frequently to leave him little in the way of a surplus. And yet the development of ability and power to advance in one's vocation is more dependent upon the use of capital in the case of farming than in the case of many other vocations. The farmer must have capital. He acquires it either through borrowing or through saving, or both. He must accumulate capital of his own through saving a part of his income, however, if he is to progress permanently. Wage hands, skilled workmen, and professional men, on the other hand, can and do rise in their vocations whether or not they save a part of their earnings.

While the high price paid for credit is a very serious matter, it is one that should not be emphasized to the exclusion of other factors which operate to cut down the accumulation of wealth by tenants. Most tenants are poor business managers. They keep no records or accounts covering their operations. They keep no check upon their expenditures. When in the possession of a surplus, frequently they dissipate it in some useless manner or invest it unwisely. Professor William Leonard in his testimony before the Commission on Industrial Relations gave it as his observation that 'in planning, in organizing, in anticipating the needs and demands even of the immediate future, the tenant is very weak indeed. In making his

¹ *Farm Tenancy in the United States*, p. 211 ff. -

capital outlay, he too often shows an extravagance far beyond the needs of his business. For instance, in equipping a one-team farm, one man is known to have gone in debt approximately \$1200 for mules, machines, tools, etc. One half this sum, and less, would have been quite sufficient. Another man with five children within the working period was a share cropper. He was absolutely without capital. He, of course, could have more than doubled his earnings by being able to equip a two-team farm. Thus there is little careful attention given to combining land, labor, and capital in the most advantageous way. Moreover, there is the most wasteful use of machinery. Doubtless in this country, nine tenths of all the machinery is standing out in the weather, to which fact may be attributed fully one half its depreciation.¹

Professor Leonard further stated in his testimony that he had obtained income figures from a considerable number of tenant farmers, of whom about one third were croppers. The average cropper's net income was \$750 and the average share tenant's net income was \$1000. These figures represented, in fact, the net *family* income, and out of it all family living expenses had to be taken. Professor Leonard's study was made during the period just before the War. In a more recent study of farmer incomes in the black land belt (1919), it was found that the average net disposable income of 62 croppers was \$1094; of 179 share tenants, \$1513; and of 76 owner-operators, \$2429. After providing for all living expenses, the family accumulations or savings amounted to \$149, \$291, and \$613 in the case of the cropper, share tenant and owner-operator respectively.² The savings in the case of both classes of tenants were small, and when the hazardous nature of their business is considered, the margin between profit and loss appears to be narrow indeed. While

¹ *Studies in Farm Tenantry in Texas*, Bulletin 15 of the University of Texas, p. 113. It should be stated that the tenant is not wholly to blame for leaving his machinery exposed to the weather. Landlords often refuse to build adequate shelter for them.

² U.S.D.A. Bulletin 1068, p. 25.

the yield of cotton for the state as a whole was somewhat smaller in 1919 than the 1914-20 average, the price was high; therefore, the net accumulations given above cannot be said to be the result of an especially unfavorable year's operations.

(5) *The tenant's standard of living*: The housing facilities of tenants in Texas are often very inadequate. This is especially true of the cropper. There appear on accompanying pages copies of photographs of typical owner and tenant homes in the black land belt.¹ Tenant houses are frequently in poor state of repair and, more frequently still, lack many of the essentials of a healthful environment. But the relative standards of living of the various tenure classes are probably better indicated by the total cost of family living than by any other index.

COST OF LIVING AND SELECTED EXPENDITURES OF 368 OPERATORS*

ITEMS	AVERAGE PER FAMILY		
	SHARE CROPPERS	SHARE TENANTS	OWNERS
All family living expenses.....	\$965	\$1,243	\$1,742
All furnished by farm.....	262	424	575
Meat, garden, poultry, and dairy products from farm...	184	338	450
All purchased.....	704	824	1,167
Groceries purchased.....	310	296	294
Clothing purchased.....	201	259	358
Given to church and charity...	13	22	53
Recreation, entertainment.....	11	10	15
Tobacco and other personal...	20	20	27

*From U.S.D.A. Bulletin 1068, p. 54.

The average size of family was approximately the same for each tenure class. It is interesting to note that the living cost of the average cropper family was only 55 per cent of that of the owner family, and that the living cost of the average share tenant family was only 71 per cent of

¹ U.S.D.A. Bulletin 1068, p. 51. The photographs are reproduced through the courtesy of the United States Department of Agriculture.

that of the average owner family. Moreover, there was a substantial difference in the quality, variety, and methods of preparation of food which made the comparison even more unfavorable for the tenant (especially the cropper) than the figures above would indicate. The figures do show, however, that in the form of fresh products, such as garden truck, dairy, poultry and pork products, the cropper received only about 41 per cent as much as the owner-operator, and the share tenant only about 75 per cent as much. The usual diet of operators who do not raise fresh meats and garden products consists almost entirely of groceries bought at local stores, few of which handle fresh vegetables and fruits. As a result, these important constituents of a well-balanced diet are often wanting in the meals of those who do not have gardens. Furthermore, good milk is relatively hard to buy in many localities. It is the lack of these important articles of food, or their inferior quality when bought, that makes the money value of family living, as given in the foregoing table, an inadequate measure of the difference in family living standards.

(6) *Tenant's difficulty in becoming a landowner:* The small amount of annual accumulations of the tenant is one of his principal handicaps in becoming a landowner with the consequent improvement in his status as a citizen and as an asset to his community which such a rise in tenure would ordinarily mean. For the average share tenant to buy the farm he operated in 1919 on the basis of his 1919 accumulations of wealth, as revealed by the survey of certain black land counties previously referred to, it would require nearly twenty-eight years to pay completely for his farm and equipment.¹ The average value of farms operated by share tenants included in the survey was \$16,489. The tenant would have to farm more than thirteen years to complete payment, if he were required to pay in cash at least one third of the price of the farm and equipment before he could buy. The main difficulty in acquiring a farm, however, is

¹ For details see U.S.D.A. Bulletin 1068, p. 30.

TYPICAL TENANT HOMES

Upper. The operator is a 'third and fourth share' tenant, beginning for himself in the black land ten years ago; worked as a carpenter three years; has never moved since beginning to farm, has accumulated from earnings an average of \$83 per year. The land on this farm is among the most fertile in the black land. Note that crops are grown to the very door — a common situation on tenant farms in the black land.

Lower. The operator, a share cropper, began for himself twenty-four years ago in Tennessee and farmed in that State ten years as a cropper, moving five times; he has moved eight times and has had four reverses in tenure during the fourteen years he has been in the black land; he attained the share tenancy stage and remained in it for one year only. Eleven people, including a married son and wife, live in the house. The operator has lost an average of four dollars per year since he began for himself twenty-four years ago.

(From *U.S. Department of Agriculture Bulletin* 1068)



TYPICAL TENANT HOMES

not that experienced in paying out after a substantial equity has been built up, but rather that of building up the equity. It is clear that a long time will be required to accumulate an amount sufficient to pay one third down on a farm valued at nearly \$16,500 out of annual savings of less than \$150 for the cropper and \$300 for the share tenant.¹

Of course, it is the high value of land which makes it so difficult for the tenant to accumulate enough out of his small annual surpluses to purchase a reasonable equity in a farm. Ever since 1869, the average value per acre of land in the black land section of Texas has been tending steadily upward. The rise was particularly marked in the decade from 1899 to 1909, and more particularly marked still in the decade from 1909 to 1919. Since 1919, for the first time in many years, there has been a considerable recession in land values. The rise in the value of land has accompanied a rising tendency in the value of the products raised on the land. With an average land value of less than \$15 per acre in 1869, the increasing value of the yield had carried the average land value to nearly \$25 per acre in 1879, to about \$40 in 1889, to \$50 in 1899, to \$100 in 1909, and to almost \$250 in 1919.²

In spite of the smallness of the tenant's average annual accumulation and in spite of the increasing difficulty of acquiring land owing to its almost continuous rise in price, many tenants have nevertheless actually been buying land and raising themselves from the tenure stage of tenant to that of landowner. They have been doing this, however, to an increasingly great extent by the use of borrowed money. The survey of black land counties revealed the fact that the average wealth used by the operator when beginning as an owner was only 49 per cent borrowed before 1889,

¹ Bulletin 1068, p. 30. 'The largest and most difficult step in the land-tenure ladder has been that from tenant to mortgaged owner. The analysis of farm income figures has demonstrated that under average conditions the process of acquiring land has become one of no small difficulty in many parts of the United States.' (*Yearbook*, 1923, p. 565.)

² Bulletin 1068, pp. 10, 11, for details.

whereas it was nearly 73 per cent borrowed in the decade from 1909 to 1919. The average wealth used at the beginning of the ownership stage was approximately the same at both periods.¹ There is, of course, a danger in relying too heavily upon borrowed money as the means of acquiring land. This point is well brought out in an article entitled 'Farm Ownership and Tenancy' which appears in the 1923 Department of Agriculture *Yearbook*. The following quotation is from pages 546 and 547:

It will be apparent that buying farm real estate by borrowing money at regular interest rates with the purpose of paying it out of earnings must be difficult for the tenant farmer of average resources and ability in regions where net returns from the real estate average only three or four per cent.² It is true that if the expected increments in income materialize, they will tend to ease the situation for the purchaser, but it is a very uncertain foundation on which to build a business if the farmer must depend in large part on borrowed money. Many a tenant, of course, was bold enough to take the plunge, and after surviving the difficulties of the earlier years, was carried upward by the tide of increments in incomes and valuations to a secure financial position. But many others, especially those of poor credit ratings or conservative dispositions, were undoubtedly deterred from embarking on a future involving so large an element of speculation. In fact, local studies have revealed many cases of tenants with sufficient capital to buy land who rented from preference. Still other tenants ventured too late and were wiped out in the decline of prices which began in 1920.

(7) *Responsibility for the undesirable aspects of tenancy above outlined and discussed:* It cannot be said that there is any one cause of the unfavorable aspects of tenancy which

¹ Bulletin 1068, p. 37.

² The survey of black land counties showed the net return to the owners of rented land to be 5.9 per cent on capital invested. Aside from this return, increases in land values, for all land bought in the black land belt by the operators interviewed, equaled a net compound annual interest of from 8 to 9 per cent on the original investment. It is clear that this increase in the land value would be a large factor in enabling purchasers of farms to refund or repay indebtedness incurred. Of course, just the opposite would be the result in a period of decreasing land values such as we have had in this state from 1919 to approximately the present time.

have been discussed. They all arise from a condition of which each is a part and which each has helped to create in the process of interacting and intermingling with the others. The one-crop system, for example, is in part the cause of the farmer's lack of working capital, and his lack of working capital operates to bind him to the one-crop system. In short, we have a sort of vicious circle, in which each element of the less happy side of the tenant's social and economic position is the cause of, and is in turn caused by, every other element. No doubt tradition and custom, born of the period immediately following the Civil War, when a 'cash' crop was vital, gave the original impetus to the situation. The one-crop system, with cotton as the one crop, thus became fastened upon the state and became the basis of credit to the farmer. To this day landlords and creditors generally look to the farmer's cotton crop to the exclusion of everything else. There are now some, however, who have begun to foresee the ultimate effect of this attitude and are actively encouraging diversification as the only lasting basis of a sound agricultural policy.

D. SUGGESTED REMEDIES

Diversification: If the farming practice of Texas and if the entire business structure of the state could be divorced from the one-crop idea, a great step would have been taken toward correcting those abuses and deficiencies of our farming system which have been the subject of comment in the above paragraphs. Considerable progress in this direction has already been made, and as previously stated many landlords and creditors are taking a more far-sighted attitude toward the matter now than they have done heretofore. Their coöperation is necessary to the success of a system of diversified farming. As long as the landowner is compelled to raise only cotton in order to obtain credit, and as long as the tenant is compelled to raise it in order to obtain land to farm, as well as credit, diversification will not become established as a part of our regular farming practice.

Enough data have already been presented in this chapter to show that the tenant does not diversify his crops as much as the owner does, although not a great deal can be said for the latter in this respect. But we have additional interesting information which is included in the table on the next page. The significant points brought out in the table may be summarized as follows:

The best class of croppers, tenants, and owners, as measured by their ability to accumulate or farm profitably, raised more live stock, poultry, and garden and dairy produce, bought less groceries, planted more small grain and relatively less cotton than did the poorest and medium classes. Incidentally, these best classes made the smallest use of short-time credit. Comparing the best class of croppers, the best class of tenants, and the best class of owners among themselves, we find that the owners made the best showing in all respects mentioned and that the share tenants made the next best showing.¹

While it would not be possible for some time to break away from cotton as the major crop, even if such a breaking away were desirable (which may be doubted owing to the adaptability of this country to the production of cotton), nevertheless a decided beginning in that direction could be made if the farmers would raise more of their food and feed at home. This matter has already been extensively dealt with.

It would seem that an easy way to make a start toward a diversified system of farming would be to encourage the breeding and raising of good live stock on farms. Aside from the fact that this would tend to put back into the soil the fertility which is now being mined from it, and aside also from the fact that live stock is one of the best forms in which the farmer can invest and build up his savings, the sale of the live stock and live stock products would be a *constant* source of revenue and would reduce very greatly, if not entirely eliminate, the present habitual dependence of the farmer upon the bank or the credit store for the means of defraying his current expense.

Revamping the rental contract: As remarked several times

¹ U.S.D.A. Bulletin 1068, p. 47.

RELATION BETWEEN THE DIVERSIFICATION OF FARM ENTERPRISES
AND CLASSES OF ACCUMULATORS

ITEMS OF CORRELATION	CROPPERS			TENANTS			OWNERS		
	Poor- est	Me- dium	Best	Poor- est	Me- dium	Best	Poor- est	Me- dium	Best
Number of opera- tors.....	21	19	22	65	62	64	39	31	38
Percentage of all crop land plant- ed to cotton....	90.8	83.9	69.8	72.1	66.6	64.2	59.5	65.8	56.4
Percentage of all crop land plant- ed to small grain.	1.8	2.6	8.9	11.7	16.1	19.0	20.5	18.6	22.2
Average number of animal units other than work stock*.....	1.1	1.5	3.0	2.3	3.8	4.5	4.5	4.5	7.0
Average number of poultry per farm.....	18	26	43	50	66	66	67	64	77
Average value in dollars of garden, fruit, poultry, and dairy products re- ceived from farm for family living.....	135	205	269	314	369	375	408	457	493
Average value in dollars of gro- ceries bought...	355	329	278	279	281	317	286	292	296
Percentage of all operators in class that used short time cred- it in 1919.....	81	100	77	94	82	72	82	81	53

* 'Animal unit' as used here is the equivalent of one horse, one cow, or seven hogs or sheep. Poultry is not included.

during the course of this chapter, the farming system of this state cannot free itself from its present subjugation to cotton unless the great mass of tenant farmers are prevailed upon and encouraged to raise something besides cotton. This will not be practicable on an extensive scale unless the incessant moving about of the tenants is stopped. Their occupancy of farms must be made relatively stable and a spirit of closer coöperation between them and their landlords must be created and fostered. The one-year contract must give way to a substitute that will encourage a continuous occupancy, but here we get into deep water because we are brought face to face with the human side of the question. Present practice is grounded deeply in

custom which makes it very slow to respond to new and better ideas.

Remaking the tenant: The writer is convinced of one thing, however: no substantial progress is going to be made in the direction of diversification as a permanent policy until the average tenant is himself remade, so to speak. There must be a sort of intellectual, moral, social, and economic regeneration of the typical tenant farmer. This is a broad statement, but it is true. A very large part of the responsibility for those conditions in our farming practice which are unsatisfactory may be laid to the tenant's shiftlessness and slipshod methods of tilling the soil. We must make a more substantial man and a better citizen of him, and teach him improved methods of farming. The coöperation of landlords and creditors, let it again be said, is indispensable. He must be taught to farm more intensively in order that he may raise more crop units on the same area cultivated, and he must be taught and encouraged to diversify the crops he raises.¹ All this is mainly an educative process and of course could be expected to accomplish tangible results only over a long period of time. But if and when the foregoing changes take place in the farming practice of this state, the farmers will have cheaper credit, because they will be better risks, and they will be a happier and more prosperous people generally. Much of the gambling element in their present farming practices will have been eliminated.

¹ It is common knowledge that the German and Bohemian farmers of the south-central section of the state are among the most prosperous and progressive farmers we have. They shame the average native Texas farmer, because they farm intensively, conserve their soil, and save their money. (See Haney's article in March, 1914, issue of *American Economic Review*.)

CHAPTER V

THE LIVE STOCK INDUSTRY

A. BEEF CATTLE

Area: Texas leads all states in the number of beef cattle. It is estimated that at the beginning of 1926, there were nearly 5,300,000 head valued at more than \$105,000,000 in the state.¹ The most important live stock area lies west of the hundredth meridian (i.e., westward from Harde-man, Foard, Knox, Haskell, Jones, Taylor, and Runnels Counties) and north of the latitude of San Angelo. Reference should be made to the accompanying map. Cattle are also raised extensively in the Edwards Plateau country, and in the Gulf Coast region from the Rio Grande River to the vicinity of Houston (see map).

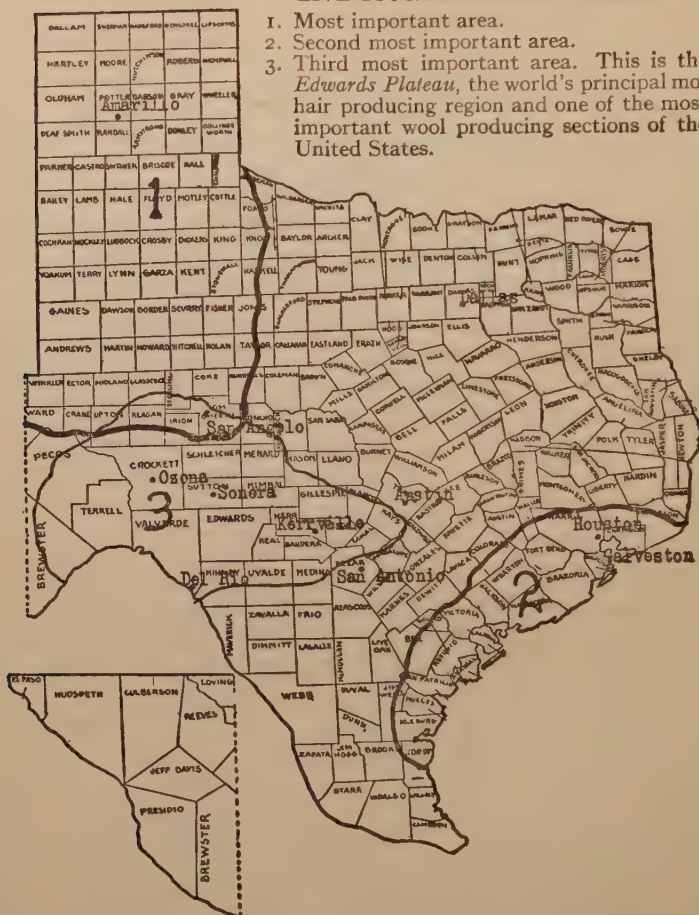
Marketing seasons: From the southern and southwestern section of the state, cattle begin to reach the market fairly early in the year, the winters being open so that cattle can pasture well through the winter and early spring seasons. Stock will move out of that territory as early as the last of February and the movement will continue to about the middle of June. As we come farther north through the cattle country, however, the season is later because the winters are longer and pasturage is consequently not available so soon as in the more southerly sections of the state. In the panhandle country, the farthest north cattle-raising area of the state, the principal movement may not take place until the fall of the year. Owing to the wide distribution of the cattle-raising areas of the state and owing to the differences in climatic conditions, it may be said that the live stock markets are receiving cattle from one district or another throughout the year.

Cattle are usually marketed through commission houses

¹ *Texas Almanac*, 1926, p. 115.

LIVE STOCK PRODUCING AREAS

1. Most important area.
2. Second most important area.
3. Third most important area. This is the *Edwards Plateau*, the world's principal mohair producing region and one of the most important wool producing sections of the United States.



located at the principal live stock markets of the country. These houses receive shipments on a consignment basis. A dealer's commission is charged for the merchant's services in disposing of his client's cattle.¹

Classes of cattle: The staple beef animal is the steer.

¹ Goats, sheep, and hogs sent to market are handled on practically the same basis as cattle.

An aged steer is one that is three years or more of age. This class generally comprises the best beef cattle. Cows, calves, heifers, and bulls in addition to steers, are all sold for meat. The lowest class of beef cattle is made up of common or canner cows. Such animals have survived their usefulness for breeding purposes and often, in addition to being old, are poor and broken down, with the result that they are fit only for making canned meats. The average yearling steer or heifer will weigh around 500 pounds. The two-year-old steer will weigh about 600 pounds, and the three-year-old steer will weigh between 700 and 800 pounds. Cows will weigh from 600 to 900 pounds. Prime feature stuff may weigh as high as 1200 pounds or more.

With regard to the purpose for which they are being kept, cattle are usually divided into two classes — feeder cattle and stocker cattle. It is essential that the banker understand clearly the difference between these classes, inasmuch as they do not stand on the same footing as collateral for loans. Feeder cattle are those which, as the name implies, are being fattened for market, usually on some feed other than natural grass. The feeding process will generally take only a comparatively few months, with the result that after entering the feeder stage cattle are usually only one step away from the market. Therefore they are, as a general thing, more desirable as security for loans than any other class of cattle, for they actually constitute liquid collateral. Stocker cattle make up a class which is usually considered broad enough to include all cattle that are not feeders. More specifically, the class includes grass-fed stock which is not necessarily being prepared for slaughter within a short period of time, and also the so-called 'she-stuff,' which term includes cows and heifers retained for breeding purposes. Younger animals, which are not being prepared for market, are also included in the stocker class. It may be remarked that the usual maturity limit on feeder loans does not exceed four months, whereas stocker loans may run from six months to as long as three years, the latter limit

being common for loans on breeding cattle. Since the feeder loan is usually made for a shorter time and is usually secured by more liquid and more readily marketable collateral than the stocker loan, the margin of security required by creditors is smaller in the former case than in the latter. On the other hand, it should be said that loans against good breeding cows have a certain self-liquidating feature which often makes them attractive to bankers and other live stock financing agencies. The increase from the cows will be the source from which liquidation of the loans will come. It may be said that at the present time a cow is more valuable for breeding purposes than for beef, because her calf is worth almost as much on the market as she is. Her value as a canner cow plus the five or six calves she will have during her period of usefulness may be greater than her value as a mere beef animal, even after making allowance for the expense of keeping her.¹ Practically all loans on cattle in Texas are stocker loans, as very little feeding is done.

Basis of extending bank credit to the cattle man: The prime consideration here, as elsewhere, is the moral risk. It is important in the case of the cattle man, even though his cattle be pledged as security, because the creditor does not actually have physical control or possession as regards the collateral. That is left in the hands of the borrower. The creditor is dependent upon the good faith and honesty of the borrower as a guarantee against the conversion of the cattle and as a warranty that they will be properly cared for.

Usually the landowner or ranch-owner is a better risk than the cattle man whose only substantial asset is his cattle. The landowner is more settled and stable. Moreover, if his land is not too heavily encumbered, it affords a margin of protection for the loan which, of course, is not available in the case of the cattle man who rents land. Finally, the

¹ This is the opinion of one of the most prominent cattle men of the state and one of the largest west Texas bankers, and was given the writer in a personal interview.

landowner has no pasture rent to pay which, for the landless cattle man, is very often a heavy expense.

The banker should give consideration to the amount of pasturage which the borrower owns or has leased, the amount of feed he has available, and to his equipment in general, in order that as nearly as possible, an accurate knowledge of his ability to care for his cattle may be had. Without adequate pasturage and feed, the borrower may suffer considerable embarrassment during the prolonged droughts which are not uncommon in our range country. If the borrower is short of feed, the banker is running the risk of having to advance more funds than he originally anticipated in order to see that his collateral later on is maintained in proper condition.¹

Most loans to cattle men are collateraled by the pledge of the actual live stock. As previously pointed out, the feeder is a more desirable type of loan, generally speaking, than the stocker. Stocker loans prevail in Texas, and it is stated that, in making them, margins of 25 to 50 per cent are usually required.² Owing to the greater hazard surrounding the handling of cattle on the open range, stocker loans made against such cattle usually call for somewhat greater margins than other types of stocker loans.

The borrower will generally list the security on a chattel mortgage which will be attached to the note given the bank. The cattle will be described as to kind, ages and brands. If cows and heifers are included in the collateral, the mortgage should contain a clause pledging the increase from the animals, inasmuch as the increase may ultimately have to be depended upon for the liquidation of the debt. The mortgage should also contain a certificate by the clerk of the county in which the cattle are located and the clerk

¹ In speaking of feed here, we are not to get the impression that the borrower would be feeding his cattle for market. The borrower would resort to feeding simply to keep his cattle alive during periods of protracted drought when the pastures were no longer available.

² *An Analysis of the Business Methods of Cattle Loan Companies*, by V. H. Newman. University of Pennsylvania, 1922, p. 24.

of the county in which the mortgagor resides (if his county of residence is not the same as that in which the cattle are located) to the effect that the records of the county show that no other mortgages against the cattle are of record. If the loan is for a substantial amount, an inspector's certificate should be obtained from an independent inspector or appraiser who has verified the count of the collateral as given in the chattel mortgage. The banker will also, of course, keep in mind the current market prices for cattle of the type which are being offered him for security. He should always pay close attention to the market, in order that he may protect himself against serious loss from price declines.

Even though the loan may be secured, but more particularly if it is not secured, the banker will be interested in analyzing fairly closely the financial condition of the borrower as reflected by his statement of assets and liabilities. For purposes of illustration, financial statements of two cattle men will be analyzed at this point.

FINANCIAL STATEMENT OF C. T. AS OF JANUARY 1, 1924

Assets

6100 acres land in F. Co. with 15 houses...	\$125,000
500 cows and heifers @ \$15.....	7,500
1500 3 and 4 year steers @ \$25.....	37,500
1000 2 year steers @ \$18.....	18,000
200 calves and yearlings @ \$8.....	1,600
160 horses and mules @ \$50.....	8,000
Equipment and farm machinery.....	1,500
Feed, corn, hay, cotton seed.....	8,000
Bank stock.....	6,000
Notes and accounts.....	2,000
Cash.....	2,500
	<u>\$217,600</u>

Liabilities

Owing on live stock.....	\$25,000
Owing on land.....	19,000
Miscellaneous debts.....	500
NET WORTH.....	<u>173,100</u>
	<u>\$217,600</u>

The statement of C. T. makes a satisfactory showing. Indebtedness is in reasonable proportion to net worth — particularly since the borrower's live stock appears to be conservatively valued and affords ample margin to protect all current debt. The real estate is valued at slightly more than \$20 per acre — too high, if the land were purely ranch land. But its location in Franklin County would indicate that a large portion of it is suitable for farming, which would tend to make it more valuable than ordinary ranch land. The statement lists some farm machinery. It is noteworthy that the borrower has \$8000 of feed on hand to supplement his pastures. Since spring grasses will be available shortly after statement date, he should have to borrow no more on account of feed requirements.

On page 126 will be found comparative statements of a cattle man who fared very ill during the severe depression of the cattle industry in late 1920 and through 1921.

The statement, dated January 1, 1920, represents the condition of the borrower before the period of depression. The cattle are carried at the high values then prevailing. Current indebtedness is nominal. On the whole, the statement does not make an unsatisfactory showing. The other statement is dated nearly three years later, and shows that during the period about one half the borrower's net worth was lost. Moreover, a very heavy burden of indebtedness was incurred — total debts (nearly two thirds current) being in excess of net worth by about \$14,000. Attention is called to the decrease in the live stock item. A careful check of the detailed schedules of the live stock will show that the decrease was occasioned principally by a reduction of the valuations placed upon the stock. This, of course, was in sympathy with the great fall in prices which took place in 1920 and 1921. Thus a large part of the decrease in net worth is accounted for by a depreciation of live stock inventories. The remainder no doubt represents actual operating losses. The cattle man has probably had to make sales at less than the actual cost of the cattle, and on

EXTENSION OF BANK CREDIT

FINANCIAL STATEMENT OF R. D. F. AND SONS

	I-I-20	II-I-22
Cash.....	\$2,000	\$ -0-
Receivables.....	-0-	1,950
Live stock	177,850	108,650
Feed.....	17,600	3,350
Ranch (11,000 acres).....	202,240	204,800
Equipment.....	6,575	6,350
Other assets.....	-0-	1,500
Total assets	\$406,265	\$326,600
Due on live stock	\$11,100	\$98,798
Other payables	-0-	7,603
Mtges. on ranch.....	80,000	63,700
Total debts.....	91,100	170,101
NET WORTH	315,165	156,499
Total.....	\$406,265	\$326,600

Live Stock Schedule

	I-I-20	
1250 2 yr. steers @ \$80	\$100,000	(graded)
200 3 yr. steers @ \$100	20,000	(")
150 cows @ \$250	37,500	(reg'd)
10 milk cows @ \$100	1,000	(graded)
4 herd bulls @ \$2500	10,000	(reg'd)
30 Hereford bulls @ \$150	4,500	(")
26 horses @ \$100	2,600	
11 work mules @ \$150	1,650	"
20 red hogs @ \$25	500	(graded)
	\$177,850	

Live Stock Schedule

	II-I-22	
1000 2 yr. steers @ \$40	\$40,000	(graded)
100 heifers — 1's and 2's @ \$150.	15,000	(reg'd)
150 cows @ \$200	30,000	(")
110 calves @ \$75	8,250	(")
16 bulls @ \$100	1,600	(")
10 milk cows @ \$50	500	(graded)
30 horses and mules @ \$100....	3,000	
5 herd bulls @ \$2000	10,000	(reg'd)
30 hogs @ \$10	300	(graded)
	\$108,650	

top of this has had heavy interest charges, taxes, and other operating expenses to meet. These expenditures, together

with the necessity of caring for serial maturities in the land debt, have doubtless caused the heavy increase in current liabilities. It should be noted that a substantial part of the live stock holdings is made up of registered stock, which, owing to the fact that it is not so readily marketable as ordinary beef cattle, is difficult of valuation.

The condition of the cattle man on November 1, 1922, was precarious.

Depression in the cattle industry: In 1917 and 1918 most of the cattle-raising districts of Texas suffered from a severe drought. This condition added materially to the already high costs of production which accompanied the great expansion of the industry during the war years. It is this expansion, however, which was the most important cause of the heavy losses which cattle men suffered during the two or three year period following the general collapse of 1921. The great cry during the war was for an increased meat supply, and the stock men responded by adding heavily to their herds and increasing their investment in ranch holdings — all at very high prices, and in large measure on borrowed money. Fresh beef exports increased enormously during the war years and it was largely in response to the foreign demand that the cattle industry expanded in such an extraordinary manner. In 1919, however, our exports suffered a marked decline, which continued until approximately the present time. The effect was a severe drop in the price of beef cattle which bankrupted the more extended cattle men and caused heavy losses throughout the industry. The following table compiled from statistics published in the Department of Agriculture *Yearbooks* for 1923 and 1924 will throw considerable light upon the points brought out above.

It is interesting to observe from the table that the slump in cattle prices accompanied the falling off of the export demand for fresh beef. The resulting hardships which befell the cattle men would not have been so severe if domestic consumption had increased to compensate for the

YEAR*	U.S. CONSUMPTION OF BEEF (Pounds per capita)	BEEF EXPORTS (Pounds)	WEIGHTED AVGE. FARM PRICE (per 100 lbs.)
1910.....	71.8†	75,700,000	\$4.76
1911.....	68.4	42,500,000	4.45
1912.....	61.7	15,300,000	5.15
1913.....	60.8	7,400,000	5.91
1914.....	59.3	6,300,000	6.24
1915.....	56.0	170,400,000	6.00
1916.....	57.3	231,200,000	6.47
1917.....	61.1	197,200,000	8.16
1918.....	65.2	370,000,000	9.44
1919.....	58.0	332,200,000	9.56
1920.....	61.2	153,500,000	8.32
1921.....	58.7	21,100,000	5.46
1922.....	61.4	4,000,000	5.48
1923.....	62.5	4,000,000	5.57
1924.....	62.6	2,800,000	4.14

* Years end December 31st, except for figures on exports, in which case years end June 30th.

† Corresponding figures for 1907, 1908, and 1909 were 79.7, 72.4 and 76.2 respectively.

loss of the foreign markets. There has been no appreciable increase in domestic consumption, however. In fact, consumption is considerably less than it was during the period from 1907 to 1911.

Outlook for the industry: During the period of liquidation in the industry — i.e., from 1921 to about the present time, when creditors have had to insist that their advances be substantially reduced, if not entirely liquidated — the best beef animals were thrown on the market in profusion. And owing to the weakened condition of the stock man, he has not found it practicable to carry his young animals until they become aged stuff; instead he has been under a strong inducement to market them as calves and short yearlings. Consequently, at the present time, there is a great scarcity of steers of all ages. There are many old cows, however, but a large proportion of them are reaching the age when they will no longer be fit for breeding purposes; and since, for the reason above stated, calves have been sold instead of retained for breeding purposes, it is probable that the supply of the more desirable beef animals, regardless of

age or class, will be greatly reduced. This condition should give rise to better prices and better times for the industry.¹

Cost of producing cattle in the northern range country of Texas: Before the discussion of the beef cattle industry is concluded, it may be of interest to call to the reader's attention what appears to be the only cost study thus far made in connection with the production of range cattle in Texas. The study is in the form of a Preliminary Report of the Bureau of Agricultural Economics and the Bureau of Animal Husbandry of the United States Department of Agriculture and bears the date of April 1, 1924. It covers fifteen ranches having nearly 39,000 cows (and their calves) located in the northeastern range area of the state. The area is bounded by Archer, Hardeman, Crosby, and Jones Counties. The Report states that the range and climatic conditions and the general methods of operation prevailing on the ranches studied are applicable to the majority of the ranches located within the area lying approximately one hundred and fifty miles west and slightly north of Fort Worth. The ranches studied are operated strictly as cattle breeding establishments and rarely are early spring calves kept on the ranches later than November 1st. They are sold to local buyers, on the open market, or directly to corn belt feeders. A comparatively high percentage of the heifer calves are usually shipped as vealers during the summer. Late summer and fall calves are sometimes held until the following spring and are sold as short yearlings. The study covers the years 1920, 1921, and 1922. Very complete and accurate records were kept on each of the ranches studied.

I. CAPITAL REQUIRED TO OPERATE THE AVERAGE RANCH

The amount of capital required to operate a ranch is often underestimated. The average investment per 100 cows on the fifteen ranches in 1922 was as follows:

¹ Since writing the above in 1924, cattle prices have improved by about 15 per cent.

Buildings and improvements	\$1,164
Cattle investment	6,730
Equipment.....	547
Deeded land.....	<u>12,254</u>
Total.....	\$20,695

With an average calf crop of 66.9 per cent, the average capital investment per 100 calves would be approximately \$31,000.¹

2. COST OF CARRYING A COW ONE YEAR

Figures were compiled to show the average cost of carrying a cow one year on the fifteen ranches, more than 38,000 head being included in the study. On reference to the table on page 131, it will be noted that there was a substantial decline in both operating cost and deduction from profits from 1920 to 1922. The approximate *cash* outlay of the ranchman (or the 'net cost,' according to the report) is made up of the operating cost items and the interest and lease rentals actually *paid out*. The net cost in 1922 was \$20.07. The gross cost was \$27.22, which included interest on the operator's investment and a return for his labor. The table is presented as possibly indicating what it cost during the years in question to keep other mature cattle.

3. COST OF PRODUCING A CALF

The table on page 132 will probably be more interesting, however, since it measures the cost of producing calves to weaning time, the product which the ranches were actually engaged in producing for the market. Cattle producers on the average made no profits above their net or cash costs, but lost \$4.59 per head on their calves in 1922. As shown in the table cash costs amounted to \$30.00, whereas the average sale price for the top steer calves sold was only \$25.41. If the vealer-heifer calves and the cut-back steer calves be included, the price received would be lower than \$25.41.² The table shows a gross production cost in 1922 of \$40.37 per

¹ *Report*, p. 12.

² *Ibid.*, p. 6.

**COST OF CARRYING A RANGE COW ONE YEAR ON FIFTEEN RANCHES
SOUTHWEST OF WICHITA FALLS, TEXAS**

(Total of 38,511 head—1920, 1921, 1922)

ITEMS OF COST	AVERAGE COST PER COW		
	1922	1921	1920
Gross cost of carrying a breeding cow....	\$27.22	\$28.52	\$34.94
Operating cost.....	12.88	12.77	16.72
Deduction from profits.....	14.34	15.75	18.22
Operating cost:			
Feed (cost of winter feed).....	1.70	.87	1.01
Salt.....	.12	.14	.13
Hired man labor.....	1.49	1.94	2.66
Repairs.....	.16	.21	.31
Miscellaneous.....	1.37	1.60	2.17
Taxes on land and cattle.....	1.17	1.30	1.47
Death loss.....	.67	.78	.86
Depreciation:			
On breeding herd.....	4.53	3.89	5.61
On equipment.....	.63	.70	.89
On improvements.....	1.04	1.27	1.61
Deduction from profits:			
On grazing land:			
Leases paid on land.....	1.92	2.11	2.37
Interest paid on land*.....	2.96	3.16	3.86
Interest on operator's investment*..	4.27	5.26	6.23
On cattle:			
Interest paid on breeding herd*.....	2.31	2.65	3.07
Interest on operator's investment*..	1.64	1.42	1.32
Interest on equipment @ 6 per cent...	.27	.29	.35
Interest on working funds @ 6 per cent	.35	.36	.46
Labor performed by ranch owner.....	.61	.50	.56

*Interest on land notes at 7 per cent, interest on cattle notes at 8 per cent, these being average rates actually paid; interest on operator's investment at 6 per cent, approximate 'net' current interest rate. See page 4 of the *Report*.

**COST OF RAISING A CALF UNTIL WEANED ON FIFTEEN RANCHES
SOUTHWEST OF WICHITA FALLS, TEXAS**

(Total of 25,590 head — 1920, 1921, 1922)

ITEMS OF COST	AVERAGE COST PER CALF		
	1922	1921	1920
Gross production cost at weaning time...	\$40.37	\$41.11	\$54.10
Operating cost.....	19.25	18.41	25.52
Deductions from profits.....	21.12	22.70	28.58
Operating cost:			
Feed.....	2.54	1.26	1.54
Salt.....	.18	.20	.20
Hired man labor.....	2.22	2.79	4.19
Repairs.....	.24	.31	.49
Miscellaneous expenses.....	2.04	2.31	3.39
Taxes on land and cattle.....	1.75	1.88	2.34
Death loss.....	1.00	1.09	1.16
Depreciation:			
On breeding herd.....	6.77	5.73	8.25
On equipment.....	.95	1.01	1.39
On improvements.....	1.56	1.83	2.58
Deduction from profits:			
On grazing land:			
Leases paid on land.....	2.87	3.04	3.74
Interest paid on land*.....	4.42	4.55	6.09
Interest on operator's investment*..	6.36	7.59	9.83
On cattle:			
Interest paid on breeding herd*.....	3.46	3.81	4.72
Interest on operator's investment*..	2.45	2.05	2.02
Interest on equipment @ 6 per cent...	.41	.42	.55
Interest on working funds @ 6 per cent	.54	.53	.72
Labor performed by ranch owner.....	.61	.71	.90

* Interest on land notes at 7 per cent, interest on cattle loans at 8 per cent, these being average rates actually paid; interest on operator's investment at 6 per cent, approximate 'net' current interest rate. See page 8 of the *Report*.

calf, which means that the calf would have had to bring \$40.37 at weaning time ¹ to enable the operator to defray all operating expenses and overhead and at the same time earn a six per cent return on his own investment (certainly a reasonable amount if the cattle man is to remain in business).

The table reveals also two other interesting facts. If the operator had not been burdened with interest payments in the amount of \$7.88 per calf in 1922, he would not have operated at a cash loss that year, and might, on the other hand, have made a small profit on his investment. Depreciation charges against the breeding herd were heavy. The depreciation represents the difference between the original cost and what the cows and bulls will bring at the end of their useful years in the herd. It is one of the largest items of cost, and ability to reduce it is a true test of efficient management. Lengthening the period of usefulness of cows, by interchange of bulls among operators, for example, is advisable under some conditions as a means of decreasing the depreciation, but a more generally applicable plan under prevailing range conditions seems to be in practice on a certain ranch studied in the report. The report at page 21 reads as follows:

On this particular ranch, the top heifer calves from mature cows are kept to replace the cull cows. The heifers are bred to calve at two years of age and extra care is given them at the time. Very close attention is paid to the older cows during the winter and when one fails to winter in as good flesh as is considered that she should, she is remembered. If she fails to calve in the spring, she is shipped with the calves from the two-year-old heifers in June or July. If she does calve in the spring, her calf is shipped with the calves from the two-year-old heifers in June or July, the old cow is thrown on good grass and ordinarily will fatten during the summer. In either event, the cull cows generally go on the market as grass fat cows and yield from two to three times the returns that they would ordinarily yield as canners. A total depreciation of \$30 over a period of eight years is not unusual under the most common practice of selling cull cows as canners, but the above system has reduced the depreciation to approximately \$10 per cow on a particular ranch over the same period of time. The annual replacement of bulls at present is approximately 25 per cent and of cows 12.5 per cent.

¹ When the calf would weigh about 400 pounds and be nine months old.

4. OTHER FACTORS TENDING TO MAKE RANCH OPERATIONS UNPROFITABLE

In some cases, the value of the land in the ranches studied was not based upon its carrying capacity (the proper measure of value), but upon its adaptability for agricultural purposes. The average inventory valuation of land was \$10.52 per acre.¹ The returns from cattle in most cases barely covered operating expenses, allowing no return on the investment nor any wage for the operator.

Over-grazing of the range is one of the chief faults to be charged against the average cattle man. In recent years, his desire to reduce his heavy burden of indebtedness has led him to force his land to carry all cattle possible with the hope of producing larger returns per land unit. If such a practice should be pursued continuously for a sufficient length of time, it would result in stunting the growth of and ultimately in killing the forage. 'The financial loss resulting from over-grazing is so great that it cannot be even approximately estimated.'² During 1922, according to the report, the rate of stocking varied from 47 to 118 cow units³ per section. The average in 1922 was 60.4 cow units per section on all the ranches. The average for 1921 was 55.2; for 1920, 46; and for the three-year period, 53.8 per section. The average amount of grazing land utilized per cow unit in the three-year period was 11.9 acres, and varied from 6.2 acres to 15.4 acres on individual ranches.

A very important factor in reducing the cost of producing calves is the size of the calf crop, which is influenced by range conditions, the number of cows per bull, and whether the bulls are removed from the cow herd a few months during the late fall and winter for conditioning.⁴ On ten of the

¹ *Report*, p. 11.

² *Report*, p. 11.

³ A cow unit is the equivalent of a cow averaging 900 pounds in weight, and for purposes of comparison, all classes of cattle have been converted into cow units in order to get a more accurate method of measuring carrying capacity. (*Report*, p. 11.)

⁴ Scant range during the spring and summer invariably results in a small percentage of calves the next spring. (*Report*, p. 13.)

fifteen ranches, the bulls were taken out of the cow herd in the fall for conditioning and were returned about June 1 of the following year. On the other five ranches, the bulls were kept in the herd during the entire year. The ranches on which the bulls were removed from the cow herd had a 77 per cent average calf crop for the three years, and on the ranches where the bulls were not removed from the herd the average calf crop was 64 per cent for the same period. The conditioning of the bulls was, in a measure, directly responsible for a 20 per cent increase in the number of calves dropped. Uniformity of calves and a saving of feed in wintering cows are results of the practice that are real advantages. The saving of feed comes from the fact that if the cows are bred in the summer, they will drop their calves the following spring, instead of throughout the year. A calf dropped in the spring of the year can be weaned in the fall and sold before the cow has to be winter-fed. A cow with a calf at her side will consume a great deal more feed than she will if she is alone. Improvement in his breeding methods could be one of the ranchman's most important contributions to the solution of the difficulties in which he now finds himself.

B. THE SHEEP AND GOAT INDUSTRY

I. SHEEP

The sheep country: While sheep are found over a large part of central, north central, and west Texas, the principal sheep-raising section is in the Edwards Plateau region of southwest Texas, centering around San Angelo and Kerrville. (See the map on page 120.) In the northern part of the Plateau, grasses are fairly abundant, and cattle are grazed along with the sheep. Farther south, however, the grass gives way to brush and weeds, and sheep predominate over cattle. Goats are also run in this section. Still farther south, grass and weeds are supplanted by brush and scrubby vegetation and goats predominate. The Plateau is the foremost goat-raising area of the world, and one of the principal sheep-raising areas of this country.

Number of sheep in Texas; wool production: According to government figures, there were 3,246,000 sheep on the farms and ranches of Texas on January 1, 1925 — the greatest number ever recorded. The estimated value of the sheep was in excess of \$24,000,000. The production of wool in the state has been as follows:

YEAR	PRODUCTION (pounds)	YEAR	PRODUCTION (pounds)
1910.....	9,000,000	1918.....	11,800,000
1911.....	9,450,000	1919.....	14,486,000
1912.....	9,100,000	1920.....	18,200,000
1913.....	8,775,000	1921.....	18,000,000
1914.....	8,643,000	1922.....	19,300,000
1915.....	9,750,000	1923.....	19,700,000
1916.....	10,250,000	1924.....	22,223,000
1917.....	10,040,000	1925.....	25,690,000 *

**Texas Almanac*, 1926, p. 116.

During the past two years, the clip has been sold for around forty to fifty cents a pound in the grease.

Shearing season: About two thirds of the sheep are sheared only once a year, in the spring, during the months of April, May, and June. About one third are sheared both in the spring and in the fall, the fall clip occurring in September and October. About four pounds of wool per sheep are obtained at each clip, except that, in the case of those sheep which are sheared only in the spring, the yield will be about eight pounds. It is clear that the spring clip is more important than the fall clip. The marketing season for the spring clip usually extends through May, June, and July, and that for the fall clip through October, November, and December. The banker financing the sheep man may look forward, therefore, to two seasons of liquidation or reduction of the loans he has made.

Rambouillet is the characteristic sheep breed of the state, and Texas is noted for the fine quality of its wool. In fact, the industry in Texas has as its object the production of wool rather than mutton. In other sections of the country, notably in the Middle West and East, the production of wool is often secondary to the production of mutton.

The production of lambs: Lambing takes place in April and May, but is usually completed before shearing begins. The sheep man ordinarily retains his lambs, the ewes for replacement purposes, while the wethers are kept until they are yearlings or older. In favorable years, the wethers are fattened on winter pasturage and shipped to market in the spring as yearlings. They go mainly to Kansas City and St. Louis.¹ Many lambs are shipped in the fall, however, but since they are usually not fat enough to go directly to slaughter, they are purchased by middle western feeders and fattened in the feed lots of the central states. Old ewes are culled from the flocks in the fall of the year, and are shipped to market along with the lambs. September, October, and November are the months when the movement principally takes place.

General methods in handling sheep; wool marketing: There are very few exclusive sheep men. Most of them run cattle and goats in addition to sheep. As previously indicated, the cattle eat the grasses, the sheep eat weeds, and the goats eat brush, shrubs, and other coarse vegetation which is not attractive to either cattle or sheep. Thus, in a measure, the animals supplement each other and the running of all three classes is conducive to the fullest utilization of the range.

Inasmuch as there is no public domain in Texas (as there is in a large part of the range country farther west), sheep men either own their ranches outright or lease them. The land is worth from \$5 to \$15 per acre — the latter value usually attaching to tracts with some farming potentialities. Moreover, it is becoming more and more the practice for the open range, with its sheep herders, to give way to the enclosed or fenced pasture. The capital expenditure entailed in fencing the ranges is very heavy, but the ranging of sheep in enclosed pastures has so many advantages over open range methods that it is evidently proving to be economically sound. Among the advantages may be mentioned the following: The sheep are permitted to run loose. Thus there

¹ *The Wool Growing Industry*, U.S. Tariff Commission, 1921, p. 192.

is less trampling of the forage, and as a result, it is estimated that a given pasture will carry twice as many sheep as under the old system.¹ The number of herders can be reduced by one half, thus effecting a large saving in labor expense. The sheep thrive better, have better and cleaner growths of wool, and produce bigger lamb crops. The danger of loss from straying and from predatory animals is minimized. It is worth noting that under the system of enclosed pastures, sheep are run in comparatively small units. The majority of sheep raisers have holdings of only from five to ten sections of land and run from 600 to 1000 sheep. There are very few owners with land holdings as large as 100 sections.

The sheep man may market his wool in any one of several ways. A large part of the clips in Texas have, in the past few years, been contracted long before the wool was ever taken from the sheep's back. Buyers from the great eastern markets of Boston and Philadelphia and from Chicago, St. Louis, or other centers, anticipating a short yield or a rising market, will buy up the clip months in advance of the shearing season. Usually advances are made to the grower against the prospective clip. On the other hand, a large part of the clip is not sold until shearing time, when it is the subject of bargain and sale, either at the shearing shed or at the warehouses located in some wool center, such as Kerrville, Del Rio, Menard, or San Angelo, where wool is concentrated. Some wool is consigned directly to the large dealers in the important wool centers above mentioned. Boston is the leading wool market of this country.² A substantial portion of the Texas clip is sold for the producers by merchants or bankers, either at auction or by private treaty.

¹ *The Wool Growing Industry*, U.S. Tariff Commission, 1921, p. 191.

² It is a striking peculiarity of the wool market of this country that, although from 550 to 750 million pounds of wool with a total valuation ranging from \$112,000,000 to \$350,000,000 are handled annually, there is no established public market for the commodity, corresponding with the great London wool auction sales, for example. This is especially remarkable, since nearly all of the wool passes through two or three leading centers.

The buyer bases the price he offers upon the estimated scoured content of the wool.¹ He has fixed scoured limits on the various grades delivered at seaboard or other market centers, and from these limits he works back to the value of, or the price he can pay for, the wool in the grease.² Owing to the wide range in the quality of wool, and in its length, character, shrinkage, and adaptability for special uses, the trade in the commodity is very speculative. Future trading is impracticable. The only 'hedge' for the dealer which is really at all effective is his own judgment. He must depend upon being able to operate with an excess of profit over loss over a series of years.³ It is the dealer who runs the largest speculative risks in the wool business, because he carries the clip from the time it leaves the grower's hands until the mill buys it to take care of orders.

Financing the sheep man: Short term loans from banks are used mainly for running expenses. Borrowing begins about Christmas to care for winter costs, such as feed, labor, and supplies. Between February and April, depending upon when shearing and lambing begin, additional credit is needed for those operations and to carry the wool until it is sold. The sheep man usually depends upon the proceeds of his wool sales to pay the expenses incurred during the winter and spring. Should the funds from that source be insufficient to meet the expenses, further short term loans may be made to mature when the lambs are disposed of in the following fall. Unfavorable seasons, or extraordinary costs on account of feed and replacements, may necessitate borrowing for longer than normal periods. Also, loans for the purchase of breeding animals will customarily run for a longer period of time than those incurred to meet operating expenses or to

¹ The shrinkage for Texas will average 65 per cent. (*Op. cit.*, p. 236.)

² The wool dealer sells the wool in the grease also. His customer is the woolen mill. The price paid by the mill is calculated on the estimated scoured content of the wool — the mill's buyer having his clean scoured limits from which he works back to a price for the wool in the grease.

³ *Op. cit.*, p. 241.

purchase animals — such as wethers — which are shortly to be sent to market for slaughter.

It may be said at this point that the bank and cattle loan company would usually prefer as security to their advances animals in process of preparation for slaughter rather than stock sheep, or animals to be grown out and matured. The maturity of a loan in the former case might be very short — a matter of a few months at most; whereas, in the latter case, the loan might have to run for as long as two years. On the other hand, loans secured by breeding stock (ewes) have an element of liquidity in the wool to be shorn from the sheep and the lambs to be dropped by them in the spring. It is obviously important that the mortgage cover the wool and increase, in order that those sources of liquidation of the loan may not be pledged elsewhere.¹

The bank is more dependent upon the moral risk back of the loan in the case of the sheep man than in the case of the cattle man, because it is more difficult to identify sheep pledged under a mortgage than cattle. The latter are branded with hot irons which burn the marks of identification permanently into the flesh, whereas sheep are customarily only wool-branded — i.e., the marks are simply painted on the wool, and of course come off when the animals are shorn. Most sheep are also earmarked, but these marks can be fairly easily altered unless so much of the ear is cut away in the first instance as to make alteration impossible. Moreover, sheep brands are not registered. The point is that in case of conversion, the banker would have more difficulty in tracing sheep than cattle. It is frequently said that 'the brand on the man' is more important than the brand on the sheep when it is a matter of making a loan with sheep as security.

¹ In valuing ewes for collateral purposes, the banker should remember that they are worth considerably more just before the lambing and shearing season (say, in February and March) than afterward (say, in July), since the wool and the lambs shortly to be obtained may be worth as much as the ewes themselves.

The banker should give consideration to the sheep man's financial statement in connection with his application for credit. In general, the important points in the analysis of such a statement are very similar to those found in the statement of a cattle man.

Is the raising of sheep profitable? For the past three years (1923, 1924, and 1925), the sheep men have, as a rule, operated at a substantial profit. In this respect, their business is in marked contrast with that of the cattle men. Prices for both wool and mutton have been satisfactory, with the result that the heavy obligations carried over from the post-war deflation period have in large measure been liquidated, much to the relief of many banks in the sheep and goat country. With wool selling for about forty to fifty cents per pound, the sheep man can operate at a profit.

The United States Tariff Commission in their *Wool Growing Industry* (1921) gathered figures on the cost of production of both wool and mutton in all of the important producing centers of the country for the years 1918 and 1919. The figures for Texas are given in Appendix IV. Wool in those years brought about fifty cents a pound and the sheep men made money, even after allowing interest on their investment at the rate of six per cent per annum. Both 1918 and 1919 were, of course, exceptionally good years. Conditions in 1920, 1921, and 1922 were not nearly so satisfactory. In fact, many sheep men lost heavily during that period. It is interesting to note from the figures given in Appendix IV, that labor expense amounts to about one fourth and interest on the investment (at six per cent) to about one third total expense. Owing to the open winter season, the expenditures for feed are not large, except in droughty years.¹

2. GOATS

Location of the goat country: As indicated at the beginning of the discussion of sheep raising, the Edwards Plateau is the home of the goat in Texas. That section of the state is

¹ See U.S.D.A. *Yearbook*, 1923, p. 269 ff.

the principal mohair producing region of the world. The industry centers around Ozona and Sonora. At the beginning of 1925, Texas had approximately 2,000,000 Angora goats, over half of the entire number in the United States. The estimated value of the animals was approximately \$10,000,000. The following table will show the production of mohair in the state since 1900:

YEAR	PRODUCTION (pounds)
1900.....	961,500
1910.....	1,998,000
1920.....	5,085,000
1921.....	5,500,000
1922.....	5,600,000
1923.....	5,800,000
1924.....	7,000,000
1925.....	8,618,000*

* *Texas Almanac*, 1926, p. 116.

Texas accounts for over one half the total production of mohair in this country. The quality of the Texas product is said to be very good.

Shearing season: Goats are clipped twice a year and yield about two pounds of mohair per clip. The spring clip occurs in February and March, thirty to sixty days earlier than in the case of sheep. It is necessary that goats be sheared before the grasses, weeds, and brush become green, as the eating of green forage will tend to cause the mohair to shed. The fall clip will take place in August and September, and the yield at this clip will ordinarily be somewhat heavier than the spring clip. Some say that the fall clip will average $2\frac{1}{2}$ pounds per animal as against an average in the spring of about $1\frac{1}{2}$ pounds. Unless goats are sheared in the fall, their hair grows so long that it may become entangled with the brush on which they feed and result in serious loss and damage.

Kidding occurs in March and April, after shearing has been completed. As a rule, the kids are retained — the does for breeding purposes and for mohair, and the wethers for

mohair until they are four or five years old, when they will go to market (principally to Kansas City).

Miscellaneous considerations: Goats are handled in much the same manner as sheep. They are either run in small bands under the care of a herder or turned loose in wolf-proof pastures. They are often run in flocks of 100 to 1000 head, although there are numerous operators who run several thousand. Aside from the land required, it usually costs less to enter the goat business than the sheep business, because goats are less valuable than sheep. Since sheep-raising is normally more profitable and less hazardous than goat raising,¹ many prospective sheep men begin their operations by running goats, using the latter as a stepping stone to sheep raising.

Operating expenses in connection with the raising of goats are about the same as for sheep, except that at kidding time relatively more labor must be employed. At that time there must be, on an average, one man for every 150 to 200 does. And extra help will be needed for from thirty to sixty days, owing to the care which the newly born kids require. They are usually unable to follow their mothers until they are about thirty days old.²

Goats are not so rugged as sheep, and this fact lends an element of hazard to goat raising which the sheep man does not have to contend with. Goats are sheared early in the spring for reasons already given. They may thus be left exposed to considerable cold weather. If they are caught in a cold rain shortly after having been sheared, they become easily chilled to death. It would be a very expensive undertaking to provide adequate shelter over the range or pastures to protect the animals against such contingencies.

On account of the facts above outlined, the goat-raiser takes the position that he should receive twice the price per pound of mohair that the sheep man receives per pound of wool. Outside of the fact that interest on the flock invest-

¹ *The Wool Growing Industry*, p. 194.

² *Ibid.*, p. 194.

ment is less for him, he contends that his operating expenses will at least equal those of the sheep man — and this, too, without considering the relatively greater cost incurred at kidding time, and the risk of heavy loss on account of the fact that the goat is a less hardy animal than the sheep. Therefore, since the weight of the yield of mohair is, on an average, only about half that of the yield of wool, the market price should be at least twice that for wool in order that both the goat-raiser and the sheep-raiser may reap equal rewards.

PART THREE
TRADE PRACTICES IN SELECTED LINES OF
BUSINESS

CHAPTER VI

MANUFACTURING

A. THE COTTON MILL BUSINESS

Seasonal character of the business: Texas cotton mills try to operate on a full twelve months' basis, but there is generally a heavier demand for their products during the summer months than at other periods of the year. There is an especially good demand for duck, the material out of which cotton sacks used in gathering the fall cotton crop are made. And duck, together with certain other coarse materials, such as drills and osnaburgs, constitutes the principal product of Texas mills. But looking at the matter from the standpoint of the mill's need of credit, one might say that the business is very seasonal. This is occasioned by the fact that the miller must lay in his supplies of raw material mainly in the fall and winter, since the cotton, which makes up his raw material, is gathered at that time. A given mill's inventories of raw cotton will usually be very high from late fall to mid-winter, and consequently its need of borrowed money or credit will be relatively concentrated within the same period. On the other hand, the cotton should be fairly well used up on the eve of a new crop, with the result that inventories should be low by August and September and the mill should be in a comparatively liquid condition with a minimum of borrowed money.

Financing the mill's sales: The Texas miller does not, as a rule, manufacture for stock — that is, he does not manufacture his raw materials much in advance of the unfilled orders on his books. Conditions alter cases, however, and the miller may be willing to continue operations, though possibly on a reduced scale, in spite of a somewhat prolonged slump in the demand for his product. Rather than suffer the certain losses to result from shutting down his plant entirely,

he may prefer to run on, though under the necessity of storing a considerable proportion of his output for a time.

The miller may market a considerable part of his goods (particularly that sold outside of the state) through commission houses or brokers, mainly the former. Commission houses will, in some cases, have a heavy capital investment in the mill and may, by virtue of the close affiliation, supply a large part of its working capital. This may be done by lending money outright on an interest basis, or, more commonly, the house will bill the purchaser of the goods from the mill and remit to the mill the amount of the invoice at the expiration of the discount period allowed the purchaser — and this, whether the purchaser has actually chosen to discount or pay his bill or not. In this way, the mills are furnished with working capital whether their customers remit promptly or not. Most of the mills in Texas, however, finance themselves independently by borrowing from their banks. They usually borrow without security, except, perhaps, the indorsement or guaranty of interested parties. The usual terms accorded the purchaser are 2 per cent 10 days, 60 days extra, which means 2 per cent for payment within 70 days of date of invoice. These terms are ordinarily granted cutters, who constitute one of the principal classes of the mill's customers. In other cases, terms are usually 2 per cent 10 days, net 60 days. In special cases, however, very long terms or datings may be given. As a rule receivables outstanding should not be over 90 days' sales, and if they are the collection policy of the mill should be called in question. Receivables do not fluctuate much during the year.

Financing the mill's purchases: The miller buys his raw cotton from ginner and local merchants and pays cash for it — the ginner or merchant usually drawing a sight draft with bill of lading attached. The miller may have his own buyers in the country town, and thus obtain a part of his cotton direct from the growers. Most of the cotton is bought between November and March, and the demand for

credit from the banks is, therefore, heaviest at that time. Along in June or July, however, or possibly a little later, the stocks of cotton should be used up and the stocks of manufactured products sold, with the result that the mill should be in about its most liquid condition. In fact, August 31st is a common date for closing the fiscal year for that reason. In January and February the miller will have used up most of his own resources and will be leaning heavily upon his creditors. His current ratio at that time will be very low.

The point is that the cotton mill business is one in which the demand for credit is concentrated within a comparatively short period, and on that account, it would be expected that during this period, the proportion of borrowed capital invested in quick assets to the capital of the mill itself so invested would be large. With a proper understanding of the mill's credit needs, however, the banker need not be alarmed at the extent to which the mill is operating on borrowed money, for the mill's needs are seasonal. Moreover, if the mill is not manufacturing for stock and therefore has most of its inventory in the form of raw cotton, which of course is readily salable, there is no need of the wide margin of quick assets over current liabilities that exists in the ordinary mercantile business. The important point here is to know just how the mill's inventory is made up — that is, to what extent it is actually composed of raw cotton, which can be thrown on the market and realized upon immediately, and to what extent it is composed of various manufactured products, which are not so readily salable. The margin of quick assets may be smaller in the former case than in the latter, particularly if the cotton market is steady or if the mill is protected by the sale of futures. Many mills pursue the practice of selling hedges against their spot cotton, but this is by no means universal. Nor will the same mill hedge every year. Whether or not futures will be sold during a given season against spot cotton in the warehouse depends upon the condition of the cotton

market, the goods market, and many other things that may influence the judgment of the management. It will at once be clear that whether or not a mill has sold hedges against its spots may be of very vital concern to the banker.

Hedging by the mill: If market conditions are steady, if the mill is strongly backed, and if it operates with a reasonable amount of working capital furnished by its owners, then the necessity for hedging is diminished. Moreover, most mills, as stated, try to confine their manufacturing operations and purchases of raw material as much as possible to the business or orders which they actually have booked. Aside from the possibility of cancellation, there would be no reason for hedging the cotton that, in a sense, has already been sold, inasmuch as it will be consumed in fulfilling the orders already on the books. Since the inventory which the mill carries will, in all probability, be its most important asset, from the banker's standpoint, another very appropriate question which will suggest itself to him will be to what extent the cotton in the inventory is protected by unfilled orders on the books. It is the cotton which is not so protected that should be hedged. The need of hedging will be most in evidence in the late fall and winter when the heavy inventories are being carried.

The method of placing hedges and the problems encountered are very similar to those to be discussed in the chapter dealing with the cotton merchant and exporter and they will not be repeated here.¹ A peculiar problem in connection with the cotton mill business, however, is that goods, and not cotton, are sold. Consequently, unless the relation between the price of goods and the price of cotton is close and fairly steady, the hedge may afford very imperfect protection. Generally the prices of goods and cotton fluctuate in close sympathy with each other, but of recent years, this has not been always true. The cotton market has been subject to frequent and marked changes.

At best, the hedge is only partial protection to the miller

¹ See *infra*, Chapter VII, section (A).

against loss. Its purpose is to eliminate as far as possible risks which are not inherent in the miller's *manufacturing* operations. Of course, even if these risks could be eliminated, the miller would have to take his chances with the many other ordinary business risks which beset every manufacturing concern, and his profits (or losses) would depend upon the outcome.

Miller's lack of control over price of his product: Another factor in this line of business, and one of considerable importance to the banker, is the fact that the cotton miller can exercise little or no control over the price at which he must sell his product. He may withhold it from the market, it is true, or refuse to manufacture it if the price is unsatisfactory, but he certainly cannot, individually, fix the selling price of his goods. The product is staple, its market is broad and very competitive. Since, therefore, the miller has very little control over the price he will pay for his raw material and practically no more control over the price he will receive for the goods he manufactures, he must look sharply to the one factor in his operations over which he can exert considerable control — the operating expenses incident to the running of the mill. His ability in this respect may spell the difference between success and failure. If he has ability along this line and combines with it judiciousness in his buying of raw cotton, and confines his purchases as far as possible to sales, either actual or reasonably prospective, he should make a very desirable risk for the bank.

Summary: The mill should be in its most liquid condition in the late summer. Inventories should then be reduced, and borrowings fairly well liquidated. The mill should be in its most extended condition in the late fall and through the winter, on account of the fact that its borrowings will be heavy in order to carry its stocks of raw cotton. These stocks have to be purchased, in large part, reasonably soon after the crop is gathered in the fall. Since the mill is a manufacturing institution, a comparatively large investment in plant and machinery is necessary, and in this connection an

important consideration will be to what extent the mill has been mortgaged.

Analysis of statements: (See Appendix V, pages 287-353.)

B. THE COTTON SEED OIL MILL BUSINESS

Owing to the position of Texas as a cotton raising state, it is natural that she should have many cotton seed oil mills to crush the seed from her cotton crops. The principal products of the mills are crude cotton seed oil, the residual meal (cake) and hulls. In the process of reginning the seed before crushing it, the fine cotton fuzz called linters is taken from the seed. The meal and hulls are used extensively as stock feed and as fertilizer. The linters are used in upholstering and in the chemical trades. The oil is sold to packers, soap manufacturers, and margarine producers. Until comparatively recently, there was a strong foreign market for oil, but at the present time our exports of the commodity are almost negligible.¹

Seasonal character of the business: In almost every phase of its operations, the cotton seed oil mill business is very seasonal. The raw material, cotton seed, is bought in the fall and winter as the cotton crop is gathered and ginned. From September through December and January, the mill will be buying heavily. These purchases will be used up in the manufacturing processes during the winter and spring, and most of the products will be sold as manufacturing progresses. The result is that by late spring the mill should have its inventories used up and its liabilities liquidated. Thus, the average mill does not operate more than six or eight months a year. Operations are usually entirely suspended during the summer months.

One of the first questions that will occur to the banker is why the mill should be idle for so long a period each year, knowing, as he does, that it must be expensive to keep in-

¹ For the important part played by the tariff in our loss of the foreign market, see various issues of the monthly *Survey of Business Conditions* issued by the Dallas Federal Reserve Bank in 1924 and early 1925.

active the capital represented by the very heavy investment in plant and machinery. It is not because the demand for the products of the mill is strictly seasonal, since there are sufficient uses for the oil and other products to make the demand substantial the year round. Nor is it because the mill can get its raw material in only one season. One of the main reasons, and a very obvious one, is that there are too many mills in proportion to the seed to be crushed and the demand to be satisfied. If there were fewer mills to handle the same crop of seed and satisfy the same demand, those mills would have to operate over a longer season than at the present time.¹

Owing to the fact that the mill is buying seed heavily in the fall and winter and is meeting its heaviest operating expenses at that time, the banker will be called upon for substantial accommodation at that time also. After March, however, or even earlier in the year, he would expect the line to run off gradually and by May or June to be entirely liquidated. The demand for credit by the mill is, therefore, highly seasonal, being concentrated within the space of a relatively few months. And since the demand is seasonal, the banker will expect the line to go much higher in proportion to the net worth of the mill than in the case of a non-seasonal business. It will tend to do so because the need and use of credit will be temporary, and also because it would not be profitable for the owners of the mill to provide the same proportion of working capital as the owners of a non-seasonal business. They would not be able to handle advantageously the investment of such capital during the summer season when it would not be needed in the business. Since, therefore, it is to be expected that the bank will have to bear a very large part of the burden of financing the mill's operations, the loan officer must look closely to those assets

¹ It is difficult to store seed, however, because of its tendency to 'heat' (which greatly lowers its value) and because of its tendency to lose moisture (which reduces the quality and quantity of oil obtained). It is therefore usually necessary that seed be crushed reasonably soon after the cotton crop is gathered.

which will normally constitute the bulk of the net worth and consequently the bulk of his margin of safety. Those assets will be the plant and equipment. The loan officer must know something about the adequacy, age, and adaptability of the plant and equipment. Have they been properly depreciated, and *are they encumbered?* In addition to the margin of safety represented by the net worth of the mill, the banker may require, as an evidence of good faith as well as added security, that the paper be endorsed or guaranteed by the principal owners or other interested parties.

Terms of purchase and sale in the business: The mill will purchase most of its seed from gins, mainly local gins, in which perhaps it is interested. The seed is shipped ordinarily on the basis of a sight draft with bill of lading attached, in the case of those purchases made outside the mill's own community. Thus the mill pays cash for its cotton seed. The mill's products are also sold mainly for cash, shipments being made usually on a sight draft basis.

The financial statement: Since the business is conducted on practically a cash basis, the banker would not expect to find any substantial amount of receivables in the statement. Nor would he expect to find a large amount of payables to creditors other than banks, from whom money had been borrowed to pay cash for the purchases of seed. Sometimes, however, due to the close affiliation between a mill and one or more gins, there may exist some receivables and payables representing transactions between or among them. As a rule, though, the quick assets during the busy season should consist principally of cash, seed, and oil and by-products; and the current liabilities should consist mainly of bills payable to banks. The statement will usually be rendered in May or June, at which time a very liquid condition should be shown. The inventory should then be at a minimum, and so also should current liabilities (such liabilities having been created principally to finance the purchase of inventory). If the mill operates to a considerable extent on its own resources, the statement might show a relatively large amount

of cash, with a small amount of other quick assets, and practically no current liabilities. If, however, as is most likely, the mill depends almost entirely upon banks for its operating capital, the statement might show both quick assets and current liabilities in nominal amounts only — particularly if it is the practice of the mill to pay out its profits in dividends.

While, as previously pointed out, most of the mills, owing to the seasonal nature of their business, depend very much upon their banks for necessary operating capital, still every mill to be entitled to credit on its own merits should have a reasonable margin of quick assets over current liabilities. As will be brought out later, the business is very hazardous, and for this reason also the banker should insist upon a satisfactory current ratio. The margin of quick assets need not, perhaps, be so great as in those lines of business which handle less staple and slower-turning commodities or those which are less seasonal in their operations; but the peculiar risks incident to the business should be offset, in some measure at least, by a margin of quick assets. And unless the banker is satisfied that the mill is operating at a profit, owns its plant free of encumbrance, and is protected as far as possible against losses from inventory fluctuations (in ways to be pointed out later), he should insist that the margin of quick assets be substantial, or else that the paper be backed by strong endorsers or guarantors.¹

Owing to the nature of the business, a large proportion of the assets would normally be made up of plant and equipment. Since the average mill will borrow very heavily from banks to meet its working capital requirements, the banks may, in the event of misfortune, have to look to the plant and equipment for the ultimate liquidation of the debts due them. Therefore, it is well to bear in mind the fact that if

¹ As a matter of fact, owing to the extremely unsatisfactory and uncertain conditions existing in the business, credit, in most cases, is granted by banks more on the strength of endorsements and guaranties than on the standing and condition of the mills themselves.

the business should be closed out, those particular assets would no doubt be subject to very heavy shrinkage. The mill will usually be located in some small town where it would be adaptable to no other purpose than that for which it was then being used. If the bank should have to take it over, it would, in all likelihood, prove to be a 'white elephant,' and exceptionally hard to dispose of.

Certain unfavorable aspects of the business: One unfavorable condition has already been pointed out: there are too many mills, with the result that a large part of the capital invested in the business is idle for a considerable part of the year. A second unfavorable aspect is presented by the unsound method of purchasing cotton seed. The seed comes on the market in the fall and winter, or during a comparatively few months of the year, and owing to the fact that there are so many mills, each mill is more or less afraid that it will not obtain sufficient seed to insure the operation of its plant for a normal period. Thus, instead of regulating purchases of seed to accord with the amount of business which, in the light of all the facts, the mill will probably do — that is, instead of buying seed only when, in the light of prevailing prices for mill products, it can apparently be worked at a reasonable profit — each mill will proceed to stock up, thus boosting prices, and all without regard to what the manufactured products will bring when offered on the market. This more or less artificial raising of prices of the seed at the beginning of the season is considered to be one of the most unfortunate conditions now confronting the trade. Then there is the ever-present temptation to speculate. Market conditions, both with respect to the seed and with respect to the manufactured products, are highly competitive. The commodities are staples, easily handled, and subject to rapid turnover. They naturally lend themselves, therefore, to speculative manipulation. Unfortunately, many mills have staked their chances of making a profit on gambling in seed or oil. Large quantities of seed may be bought up with the idea of taking advantage of a rise in

price. Such an operation is, of course, utterly foreign to the legitimate manufacturing operations of the mill, and very often the mill suffers as a consequence. The conservative, non-speculative mill does not purchase its seed blindly, but does its buying in accordance with well thought out policies — policies which regulate the purchases, as far as possible, in keeping with the demand for the finished product. That is, seed will be bought against orders actually booked for oil and products, or against orders reasonably in prospect, and always with a view to whether the seed can be crushed with some assurance of profit. Such an operating policy minimizes the risk from fluctuations in inventory values.

Then hedging may be resorted to when practicable. In the case of the cotton seed oil mill, hedging is done by selling, not seed against seed, but oil against seed, and the oil thus sold is not crude oil, but refined oil, since only the latter is dealt in on the exchange. There are therefore many factors capable of entering into the transactions which would prevent the protection sought from being perfect. In the first place the relation between the oil futures and the seed may not remain constant throughout the period of the hedging transaction. In the second place, if the mill were called upon to make delivery of the oil (and in this regard the same risk would apply where the mill had actually booked orders for oil against its seed purchases), it may find that the quality of oil obtained from the seed purchased is lower than that required by its contract. A loss would result. And finally, crude oil makes up only a part of the total product obtained from a ton of seed. The other products, meal, hulls, and linters cannot be hedged. Nevertheless, just what steps the mill has taken to protect itself from severe losses in inventory is an important question from the viewpoint of the banker.

A final unfavorable feature of the business is the highly competitive nature of the market for its manufactured products. The mill has very little to say about the price it shall receive for its products. This condition is brought about by

the fact that the mills compete keenly with each other and by the further fact that their products must compete with other commodities which are always available as substitutes should prices become too high. Cotton seed oil, for example, competes with animal fats and particularly with lard. Cheap corn and therefore cheap hogs mean cheap lard, and cotton seed oil must meet this competition from lard irrespective of how short the cotton crop may be and how scarce the supplies of seed as a consequence. The supply of the raw material in the cotton seed oil mill business may play a very small part in determining the price to be received for oil and other products. Besides animal fats, there are other vegetable fats which offer competition, such as soya bean oil, coconut oil, peanut oil, and corn oil. The meal and hulls produced by the mill have to face competition from other feeds and fertilizers. Cheap corn and other feed grains and good pastures cut down the demand for meal and cake. It will therefore be readily understood that the business has very little control over the prices at which it must sell its products.

Summary: The banker should remember the following points: (a) What is the policy of the company with respect to the purchases of its seed? Does it try to confine its purchases as far as possible to business actually in sight or in reasonable prospect, and does it consider, in the light of prevailing prices for cotton seed products, whether it can reasonably hope to make a profit at the price it is paying for its seed? Or does the company simply speculate? (b) Does the mill possess a reasonable amount of its own working capital? (c) Are its current operations on a profitable basis? (d) Is the plant in good condition and free of debt? (e) What are the general conditions in the trade as regards competition among the mills themselves and as regards competition from substitute commodities? What is the outside responsibility of the parties primarily interested in the mill? Do they endorse or guarantee the paper?

Analysis of statements: (See Appendix V, pages 287-353.)

C. THE FLOUR MILLING INDUSTRY

Terms of sale: Flour is sold on a 30-day basis, with a discount of 10 cents a barrel for cash on arrival. Some mills in Texas allow the retail grocer (the principal customer of the mills) a jobber's commission of 20 cents per barrel. Shorts and bran are by-products of the industry and are ordinarily sold for cash.

Terms of purchase: Grain is bought for cash, the shipper drawing a sight draft with bill of lading attached. Texas does not produce enough wheat to satisfy her milling capacity; consequently a considerable amount of grain must be purchased outside the state. These purchases are usually made in the terminal markets of Kansas City and Omaha and in Kansas and Oklahoma generally.

Seasonal character of the business: Most flour mills do a fairly steady volume of business the year round, but ordinarily the best season is during the fall and winter months. The mill will lay in its largest stocks of grain right after harvest — that is, in July and August — and its bank borrowings will be heaviest at that time as a consequence. Owing to the fact that cash is paid for the grain purchased, payables to banks should make up the bulk of a mill's current liabilities. Receivables would generally be highest along in October as a reflection of the increasing fall trade and just prior to full fall liquidation. Since the full benefit of fall collections should be felt by the first of the year, receivables should be at their lowest point as of that time. Many mills try to reduce their inventory and current liabilities to a fairly low point by the first of the year, since they render their financial statements as of December 31st. But there are other mills which do not close their fiscal year until June 30th, inasmuch as that date is just at the beginning of the harvest of a new crop of wheat when inventories made up of the past season's crop should be well liquidated.

Points to remember in the analysis of a mill's statement: A flour mill, like other business enterprises, will borrow from its bank on open note up to a reasonable amount in propor-

tion to its net worth. But it may also borrow much more than this, and commonly does so after the wheat harvest, on warehouse receipts covering grain in storage.

The current ratio of the mill need not be so high as in some other lines of business, $1\frac{1}{2}$ to 2 for 1 usually being considered satisfactory. The reason for this is that the commodity handled and produced is a staple and a necessity, turns very rapidly, and sells on short terms. On the other hand, it should be remembered that the flour mills in Texas do not as a rule hedge their purchases of grain; consequently, if any considerable stocks of grain are carried in storage, the mill runs a risk of loss from fluctuations in the market price. It may, therefore, be important to know the composition of the miller's inventory for the purpose of checking the valuation in the balance sheet against the market.

Merchandise inventory should turn from five to six times a year, and in view of the fact that receivables ordinarily should not represent more than 45 days' sales, it will be seen that the statement should not show receivables in excess of, or even equal to, the merchandise on hand. This might not be true, however, of a statement rendered toward the end of the crop year — that is, in the late spring or early summer — for inventory would normally be very low at that time.

As noted above, mills in Texas do not as a rule hedge their purchases of wheat. They take their chances with the market. They have not found it practicable to hedge for several reasons. In the first place, the Texas mills cater principally to local trade; they are not national and international in the scope of their operations as are the larger mills of the North which hedge their purchases of grain regularly. In the second place, the price of flour may not fluctuate in the same manner and to the same extent as the grain which is hedged, and it is in the price obtained for the flour that the mill must reckon its profits. For example, if the mill should hedge a certain purchase of grain by selling futures against it and in the interval grain should go up in price, theoretic-

cally what the mill would lose by buying to meet its future contract it would gain in the increase in price of the spot grain. But the miller's profit depends on what he gets, not for the grain, but for the flour manufactured from the grain. Consequently, if flour does not rise in price proportionately to the rise in the price of grain, the mill must actually lose money. It may be urged that the miller, instead of manufacturing his grain at a loss, should deliver it on his future contract and thus save himself from a sure loss. The miller, however, is not in the grain business. He has bought his wheat to take care of his trade. He must manufacture flour to satisfy the demand of his trade or go out of business. Moreover, the distance of the Texas mill from the markets where the hedge would be placed would ordinarily make delivery impracticable. On this point attention is invited to the following excerpt from a letter from the president of one of the largest flour mills in this state. It is in reply to the writer's query as to why Texas mills do not hedge their purchases of grain.

On page two, answering your inquiry under item four, have to advise that even though a Texas miller has bought his stock of wheat in Kansas, Nebraska, Missouri, etc., when his wheat is shipped and in storage in Texas, it is so far away from Kansas City, St. Louis, or Chicago where it would be hedged that if wheat should advance in those markets and the flour business should be dull in Texas and flour should not advance in price in Texas, the Texas miller could not ship his wheat to the point where he had it hedged and deliver against his hedge as the freight rate from Texas to such hedging markets is too high. This does not operate against the northern miller.

And, unlike the northern miller, the southern or Texas miller does not always make his sales of flour at a definite price. Flour is sold usually for deferred delivery at a price based on wheat prices on the day of sale; the purchaser being guaranteed against any decline that may take place in price before the date of shipment; but if there is an advance in flour prices before the date of shipment, the purchaser does not

pay the advanced price. Northern mills, on the other hand, make sales at definite prices.

Flour mills ordinarily have a very substantial part of their net worth invested in expensive buildings and machinery, and it is well for the banker to remember that such assets would shrink considerably in value in event the affairs of the mill should have to be liquidated. It is really the intangible asset of goodwill associated with a flour mill that gives its plant and equipment their values on the financial statement.

A very important characteristic of this line of business is found in the fact that the individual miller is at the mercy of the market. His condition is, for example, unlike that of the clothing merchant who within fairly broad limits can determine what the selling price of his merchandise shall be. The selling price of the flour and other products of the miller is determined in a broad competitive market which cannot be influenced practically at all by any individual mill. For this reason, the miller is really in a difficult position from the standpoint of estimating what his gross profit will be, and especially so, since he does not hedge. Therefore, he should look closely to the one factor in his operations over which he can exercise a large measure of control — the cost of running his mill.

Analysis of statements: (See Appendix V, pages 287-353.)

D. THE HARNESS AND SADDLERY BUSINESS

It is said that Dallas, Texas, is the world's center of the harness and saddlery manufacturing industry and that the product of its factories goes not only into every section of this country, but also into all parts of the world. The Texas banker would therefore be particularly interested in the credit problems arising in this line of business because it is a home industry.

Terms of purchase and sale: Terms are essentially the same for purchase as for sale — 2 per cent 10 days, net 30 days. In the case of retailers (and jobbers) located in the cotton

sections of the country, it is customary to grant fall datings of September 1st on shipments made in and after the month of June. These terms are given to enable the manufacturer to book his orders and ship his goods in advance of the active consumer-buying season. It is possible for him thus to keep his factory busy during the summer months, when, if no datings were given, he could not get the dealers in the country to take goods off his hands and build up their stocks. In the wheat districts of the country, datings of March 1st are usually given, as that date corresponds with the revival of trade in the North after the dull winter months, when the farmers are not in the market for harness. The dating applies to shipments made in and after the month of December. Bills are due for discount, when datings are given, on the tenth of the dating month, with net terms of 30 days.

Seasonal fluctuations of the business: Merchandise inventory is usually highest in July and August in anticipation of the fall trade. Receivables are highest in the latter part of August and September, as are payables also. This is to be expected in the case of receivables because the October settlement of accounts is not yet due (net terms for goods shipped on September 1st datings would be October 1st). Moreover, the trade would not be in funds until the cotton began to move. Payables would be highest for the same reason that receivables were high; — the business could not liquidate its indebtedness until its collections had been made. Furthermore, merchandise bills would be due for discount at about this time (and before) and a concern would borrow from its banks in order to take the 2 per cent discount offered by the tanneries from which most of the manufacturer's raw material is purchased.

If the manufacturer confines his operations principally to the cotton country, his receivables and payables should both be low in January and should remain low throughout the spring. Inventory should also be at the low point at that time and would normally remain low through the spring also. A number of manufacturers of harness and saddles

render their statements as of the last of May, just before they have to lay in heavy stocks for the forthcoming fall trade.

Points of importance in analyzing the financial statement: Inventory turns only about three times a year on an average. The principal reason for this rather slow rate of turnover is that the manufacturer is situated at some distance from his source of supply. The tanneries are located in the North and East. The manufacturer must therefore carry a substantial stock at all times, as he cannot obtain goods or raw materials on short notice. Another reason for the slowness of turnover is that the business is a manufacturing business, which means that materials must be in the factory for some time after receipt before they are in condition to be marketed. The manufacturing process naturally slows up turnover, a statement which applies particularly to this line of business where a large part of the manufacturing is done by skilled hand labor.

The fact that terms of sale and the seasons of greatest activity are such as to call for substantial liquidation of receivables as of the time when the statement would ordinarily be rendered, and the fact that rather large inventories must be carried at all times owing to the distance of the factories from the source of supply of their raw materials — these facts bring about a fairly definite relationship between inventory and receivables at statement date. Inventory should be substantially in excess of receivables. The contrary condition would reflect upon the collection policy of the business. Whether the inventory and receivables are in proper proportion to each other can be checked against the sales figure for the period in question, if such a figure is furnished.

Gross profit in this line of business will average about 25 per cent of sales.

Analysis of statements: (See Appendix V, pages 287-353.)

CHAPTER VII

WHOLESALE

A. THE COTTON MERCHANT AND EXPORTER

WE shall be concerned in this discussion with the merchants located in the larger cotton markets of the state, such as Dallas, Waco, Austin, Houston, and Galveston. These merchants usually are exporters on a considerable scale.

Seasonal character of the business: The business is very seasonal with regard to its demand for credit, because the cotton crop is harvested within a comparatively short period of the year and the merchant takes it off the hands of the grower as the crop is harvested. Therefore, from about the last of August until about the last of March, the merchant is borrowing very heavily from his bank. Of course, the crop is not consumed in anything like as short a period as that in which it is harvested, and since it is not the custom of mills to carry large stocks of raw cotton on hand, the responsibility of carrying cotton from the time it is harvested until the time it is manufactured into cloth falls mainly upon the shoulders of the cotton merchant. Thus, the merchant's demand for credit is seasonal and reaches a peak within a short time after he begins to borrow, but he is engaged in marketing his cotton over a considerable portion of the year, with the result that his borrowings begin to taper off shortly after the first of the year, but may not be entirely liquidated until July, the eve of a new crop.

Financing the merchant's purchases: The cotton merchant is in the market for raw cotton principally from about the end of August to the end of December or January. Most of the cotton, of course, is bought from local buyers located in small towns of the state to which the farmers have brought their cotton for sale. A considerable amount is purchased also from supply merchants in these towns — merchants who

have made advances to farmers in the form of feed and food and clothing, and sometimes money, to assist them in making their crops. To some extent also the merchant, through his agents, buys cotton direct from the farmer on the streets of the small interior towns.

The local buyer or supply merchant will deliver the cotton to a railroad, taking a bill of lading drawn to his order, which he will indorse and attach to a sight draft drawn on the merchant and discount the draft with his local bank. The bank will give immediate credit for the item and send it for collection to a correspondent in the city where the merchant is located. The correspondent will present the draft and will probably receive payment by check on the merchant's bank; or the merchant may 'accept' the draft and indicate what bank is to pay it. The draft is then presented to that bank and payment received. The paying bank will charge the draft to the merchant's bill of exchange account and treat it as a note. In fact it is a demand note, as acceptance of the instrument operates to release the drawer and renders it simply one name paper. The bank will retain the bill of lading attached to the draft as collateral until the cotton arrives, when the merchant will substitute compress tickets or warehouse receipts. As cotton is sold, the tickets and receipts are released in order that the cotton may be taken out of storage and delivered to the carrier. Usually these releases are made, however, against the substitution of other receipts or bills of lading covering other cotton, or, in some cases, against trust receipts. The bank tries to maintain a margin of around 20 to 30 per cent in cotton on the credit it has advanced.

By virtue of an amendment to Section 5200 U.S.R.S., passed in 1919, a national bank is permitted to lend to a cotton merchant on warehouse receipt security a maximum amount equal to 25 per cent of its unimpaired capital stock and surplus, provided that that part of the line in excess of 10 per cent of the unimpaired capital stock and surplus is secured by warehouse receipts, or similar documents, con-

veying title to cotton of a market value not less than 115 per cent of the amount of the advance so secured.¹ There are times when this 25 per cent limit will not adequately care for the demands of a merchant, in which case the bank may arrange to grant an acceptance credit to him, permitting him to draw upon it in the form of drafts secured by warehouse receipts or similar documents conveying and securing title to the cotton. These acceptances may be sold in the open market. If they are bought by the accepting bank, they are regarded as a loan or advance to the drawer and must be included in the ordinary loan limit.

In those cases where the merchant's own agent buys from the grower, the agent may himself draw on the merchant and handle the transaction in much the same way as the local buyer or supply merchant, as above outlined. Not infrequently the agent may arrange for a line of credit with a local bank which he may use in the purchase of cotton from farmers, the credits arising from the drafts which he draws as he ships the cotton out to the merchant serving to liquidate the advances made by the local bank.

Financing the merchant's sales: The merchant buys for cash and he usually sells for cash, both purchases and sales being handled on the basis of sight drafts with bills of lading attached.² As cotton is sold, the warehouse receipts are withdrawn from the bank by the merchant, other receipts generally being substituted, and the cotton is taken from the warehouse or compress and delivered to the carrier. The carrier issues to the merchant a shipper's order bill of lading which he endorses and attaches to the draft he has drawn on the purchaser or financing bank. He discounts the draft with his local bank and obtains immediate credit therefor. The

¹ There is no limitation placed upon such loans by the state banking laws of Texas. A state bank may lend one borrower any amount against cotton properly warehoused and insured and with certain margins.

² Except in the case of foreign shipments, where sight-time drafts are drawn (usually on banks financing the shipments) — to allow time for the arrival of shipments abroad. The merchant usually discounts these drafts with his local bank.

bank forwards the draft to its correspondent for collection (or, if a time draft, for acceptance). It is the accumulation of these credits throughout the season which provides the means of liquidating advances made by the bank.

In the case of domestic shipments, the drafts will usually be drawn on brokers in New England or the Southeast, who in turn sell the cotton to the mills, or in a number of cases the drafts will be drawn on the mills themselves. Ordinarily the only documents attached to the drafts will be bills of lading and invoices.

Well over one half the cotton produced in Texas is exported. Since the Great War, many changes have been wrought in the customary method of handling export transactions with the continent of Europe, owing to the disruption of the exchanges caused by the instability of most foreign currencies. Before the War, the common method of financing export transactions was for the foreign importer to arrange for credit with his bank and advise the American exporter of the credit, the latter then drawing at 60 or 90 days sight in foreign currency on the foreign bank. The provisions as to how the shipment of cotton was to be made as well as how the drafts were to be drawn were generally contained in the sale contract between the foreign importer and the American exporter. The drafts were ordinarily drawn for a period of time sufficient to allow comfortably for the shipment to arrive abroad, and sometimes for an additional period of time for the convenience of the importer. Upon delivering the cotton to the railroad, if the shipment was made from an interior point, or to a steamship company, if made from a port, the exporter obtained a bill of lading which he attached to the foreign draft. He also usually attached a certificate of insurance and an invoice and passed the draft with all of its attachments to his local bank, accompanied by a sight draft drawn in dollars on some bank in the North or East to which he had sold the exchange represented by the foreign draft. The dollar draft would generally be payable on demand or sight; whereas, as previously

stated, the foreign draft would usually be drawn at 60 or 90 days sight. The insurance certificates and bills of lading, in these cases, were made to read to the order of the shipper or exporter and were indorsed in blank by him at the time of delivery to his local bank, thus giving the holder title to and control over the cotton in transit. The American bank purchasing the foreign exchange would of course send it to its foreign correspondent who would present it to the drawee bank or spinner or importer, as the case might be, for acceptance and then hold it for the account of the American bank, or else dispose of it in the open market and credit the American bank with the proceeds. Upon acceptance of the foreign draft, the acceptor would detach the documents and hold them as security against its acceptance.

The above method of financing foreign shipments is still used in connection with most shipments to British importers, but it is not used very extensively in the case of shipments to the Continent. Other methods of financing Continental shipments have grown up, the most common one being that of requiring the foreign buyer to provide a dollar credit and authorizing the American exporter to draw on the American bank with which the dollar credit is opened. The reason for this arrangement is that it relieves the American exporter of danger from the fluctuation of exchange, since the sale is made in dollars and not in a foreign currency. The foreign importer will enter into a contract with the American exporter whereby the latter is to ship the importer so many bales of cotton between certain dates in certain lots at a price agreed upon or to be fixed. The importer will have arranged with his bank to open up with some American bank a credit in favor of the American exporter. The American bank will issue a letter of credit, advising the exporter that he is authorized to draw on the bank up to a certain amount and within a certain time, against shipments of cotton to the foreign importer. It is also stipulated in the letter of credit whether the draft is to be drawn payable on demand, at sight or so many days

after sight. The merchant or exporter may discount the draft drawn in accordance with the letter of credit with his local bank or he may sell it to some eastern bank. In the latter event he will draw a sight draft on the eastern bank, attaching the purchased draft and all documents. He will discount the sight draft with his local bank and obtain immediate credit.

If, instead of selling the draft drawn under the letter of credit to the eastern bank, the merchant discounts it with his local bank, the latter will send it to a correspondent to be presented for payment or acceptance, depending upon whether the draft is payable on demand or so many days after sight. If the draft is paid on presentation, the correspondent will credit the account of the local bank; if the draft is accepted, the correspondent will either hold the acceptance for the account of the local bank or sell it in the market and credit that bank's account. The accepting bank will, of course, have detached all documents at the time of acceptance.

If the local bank has discounted a demand draft drawn on an eastern bank to whom the merchant has sold the draft drawn under the letter of credit, the local bank will send the discounted draft, together with all attachments, to its correspondent for collection and credit. The correspondent, upon receiving the proceeds of the discounted draft, will turn over the time draft and attachments to the paying bank, who in turn will submit the time draft for acceptance, after which the procedure is exactly as outlined above.

There is another method of financing by means of dollar credits which does not involve the arrangement of a credit in this country by the foreign purchaser or his bank. This method is of the nature of a loan on the part of the American bank to the exporter. The exporter will have arranged with the foreign importer to ship him cotton to be paid for by cable transfer on New York upon the arrival of the cotton at the foreign port. In this case, the responsibility is placed upon the importer or his bank to see to it that dollars are

obtained in time to remit to the American bank financing the transaction upon the arrival of the cotton abroad. The American bank in a transaction of this kind will usually not permit the exporter to draw upon it for the full amount of the current shipment. On the contrary, the draft will be drawn for 80 or 90 per cent of the value of the shipment, the remainder being retained by the bank as a margin of safety. Either a sight or time draft will be drawn by the exporter and the draft will be handled in the way outlined in the preceding paragraphs. If a time draft is drawn, the American bank financing the transaction will accept it and the draft may be disposed of in the open market, the proceeds being remitted to the exporter's local bank which originally discounted the draft and sent it to New York for acceptance and sale. If the draft is drawn payable at sight or on demand, it is of course paid upon presentation. Documents accompany the draft which are detached by the New York bank against its acceptance or payment of the draft. It will forward the documents to a foreign correspondent, usually located at the port where the cotton will arrive, there to be held until the cotton reaches port and to be released upon payment of the invoice by the importer. The funds thus received are credited to the account of the American exporter and provide the means with which the acceptance of the American bank is met, in the event a time draft was drawn by the exporter. Any excess above the amount for which the draft was drawn remains, of course, to the credit of the exporter.

In addition to the usual documents, consisting of bills of lading and insurance certificates, which are attached to drafts drawn under dollar credits, there are also usually attached consular invoices and certificates of origin, when these documents are required by the consular regulations of the Continental countries to which the cotton is destined.

Owing to the impoverished condition of a large number of foreign buyers, another method of shipping cotton abroad has been devised, which also throws the burden of financing

the transactions upon the shoulders of the American banker. The exporter may consign cotton to a foreign agent for sale to brokers or spinners, the American bank agreeing to finance such shipments against drafts drawn upon it by the exporter for some stipulated percentage of the value of the cotton. In this case, the bank forwards the documents abroad, there to be released against actual sales of cotton to foreign purchasers by the agent of the exporter. It is said that a very large amount of American cotton exports are not financed on this basis. Under the consignment plan, some exporters have considerable stocks of cotton stored in Europe throughout a large part of the year.

Hedging: One of the most mysterious things about the cotton trade, and yet one of the most important from the standpoint of the banker, is the operation known as hedging. Hedging is simply trade insurance effected by the cotton merchant or any other owner of cotton for the purpose of protecting himself against the fluctuations in the price quotations of raw cotton which occur every day, and which are sometimes so substantial in amount as to cause severe losses to the owner of cotton who does not have it hedged. Unless the banker knows whether or not the cotton merchant is carrying hedges against the cotton shown in his financial statement, he cannot safely rely upon the statement as a basis of extending credit. If cotton is unprotected by hedges, the merchant may, at the height of the season when he will probably be carrying large stocks of cotton on heavy bank borrowings, be in such a position as to have at least a substantial part, if not all, of his net worth wiped out by a fall in the price of his holdings.

The best way to understand hedging is to consider it in connection with a concrete example. Suppose that the cotton firm of Smith and Company has bought 1000 bales of cotton and has stored it in a warehouse. The firm has paid cash for the cotton. In order to protect itself from a loss in event of a fall in price, the firm will instruct its broker to sell on the New York, New Orleans, or Liverpool cotton ex-

change a future contract for the approximate amount of cotton represented by the cotton in the warehouse. This future contract will call for the delivery of so many pounds of middling cotton by Smith and Company at a certain price during a certain month in the future. We will say that this month is March and that the spot cotton was bought by Smith and Company in October at a price of 20 cents a pound. We will say that Smith and Company sells the future contract at a price of $20\frac{1}{2}$ cents a pound. Therefore, we have the following figures as of the date Smith and Company buys the cotton:

1000 bales spots, @, say, 20 cents per pound . . .	\$100,000
1000 bales March futures sold @ $20\frac{1}{2}$ cents	102,500

Now, suppose the price of cotton goes down to 18 cents and suppose the 1000 bales are sold by Smith and Company at this figure. The Company would receive \$90,000. Immediately upon consummating the sale of this spot cotton, however, the firm would buy in enough future contracts to offset the future sale made at the time the spot cotton was bought. Inasmuch as the price of spots and the price of futures usually fluctuate very closely in sympathy with each other, the firm is able to buy in its futures at a price lower than that at which it sold them by approximately the same amount as the difference between the spot price when it bought the spot cotton and the spot price when it sold that cotton. In other words, it could buy in future contracts at about $18\frac{1}{2}$ cents. Thus the saving it would make in the purchase of the future contract over the price at which it had sold the future contract would just about offset the loss entailed in its sale of spots. We have made no allowance in this example for the merchant's profit, but that would be cared for in the price at which he sold the spot cotton. That is, instead of selling the spots at exactly 18 cents, which would be the market, he would sell them at 18 cents plus certain expenses and plus a certain number of 'points' representing his profit. The hedging transaction

would simply take care of the fluctuation in the actual cost to him of the raw cotton.

As another example, suppose the cotton merchant sells cotton forward — that is, suppose the merchant in June enters into a contract with a mill to furnish it with 1000 bales of cotton to be delivered in 200-bale lots, beginning October 1st and ending December 1st. We will assume that the merchant does not have any cotton on hand at all at the time he makes the contract with the mill. In order to protect himself against the possibility of his losing money by having to buy the spot cotton in the future at a higher price than that at which he contracted to sell it to the mill, the merchant will instruct his broker to buy 1000 bales of December or January futures. As the merchant buys in his spot cotton to make shipments to the mill, he will at the same time instruct his broker to sell corresponding future contracts (thus cancelling his prior purchases of contracts). Since the fluctuation in the price of spot cotton between the time of making the contract with the mill and the time of making his spot purchases will be in sympathy with the fluctuation in the future market, any loss or gain to the merchant by virtue of the spot fluctuations will be approximately offset by corresponding fluctuations in the future market.

Call cotton: A large part of the purchases of cotton at the present time are not made on the basis of a fixed price; instead, the price is provisional and to be fixed at the option of the buyer or seller at some future time. This is called purchasing or selling on call and often proves of value, as may be seen from the following example:

Suppose a mill does not have any orders on its books for goods and suppose the price of the grade of cotton which it uses in its operations is high and therefore that it does not desire to lay in a supply in the face of the uncertainty as to what the future price of goods will be. At the same time, however, the mill realizes that if it does not now make commitments for the grade of cotton which its operations re-

quire, it may not be able to acquire that cotton when orders for goods materialize. To meet such a situation as this, the method of purchasing cotton on call was devised. In July the mill may enter into a contract with a cotton merchant for 5000 bales of strict middling, the price to be 300 points on December and to be fixed on call by the mill. This means that the merchant will make deliveries of cotton in lots as stipulated from time to time during the cotton year, but the final price which he will receive for the cotton will not be determined until the mill fixes the price by calling the cotton. At the time the cotton is called, the price then is fixed at 300 points on whatever the December future contract happens to be selling for at the time the call is made. That is to say, 3 cents per pound will be added to the December future quotation and the result will be the price to be received by the merchant. Of course, the mill will not call the cotton and fix the price until it has booked orders which, when looked at from the standpoint of the prevailing quotation for December futures, will enable it to make a profit. Thus it is seen that the mill is assured of a supply of the grade of cotton which it requires and yet does not have to commit itself as to the final price to be paid, until it has had time to assure itself of orders for goods which will enable it to purchase the cotton on a profitable basis.

When the mill calls the cotton, it instructs the merchant's broker to purchase for the merchant's account December futures in an amount equal to the amount of cotton called. For the purpose of making the case plain, we will assume that the mill calls the entire 5000 bales on October 1. The mill will then instruct the merchant's broker to buy for the merchant's account 5000 December futures. If the merchant has already accumulated the 5000 bales of cotton at the time the call is made, he will of course have sold against his accumulations 5000 bales of December futures. Thus, on the date of call the merchant has actually sold 5000 bales of spots at a fixed price, against a previous purchase of spots at a definite price, and has also bought at a definite price 5000

bales of futures which will offset a previous sale of futures on his part. Now, suppose the price of spots has fallen two cents a pound on an average in between the dates of his purchasing the spots and the date when the mill actually called the cotton. It will be seen that if the future market fluctuates in sympathy with the spot market, as it will, the futures bought in for the account of the merchant on the date of the call will be purchased at a lower price than the futures which the merchant had previously sold against his spot purchases, and this difference will tend to offset the decline in the price of spots.

If the merchant has not already bought in the spots at the time the mill calls, he will be, on the date of call, short 5000 bales of spots, and long 5000 bales of futures — this latter caused, as previously stated, by the mill, on calling, instructing the merchant's broker to purchase for his account 5000 bales of futures. Then, as the merchant buys in his spots, he will sell December futures against them. The differences between the purchase price of the spots and the selling price fixed when the call is made will be approximately offset by the difference between the purchase price of the futures on the call date and the selling price of the futures on the dates when the merchant actually buys in his spots.

Hedging is not perfect protection: While it is essential that the banker know whether the cotton merchant whom he is financing is carrying hedges against spots on hand or sales of spots forward, at the same time the mere fact that hedges are carried is not perfect assurance that the merchant may not suffer substantial losses. This is due, among other things, to the basis risk which is inherent in all the merchant's future transactions. Basis simply means the relation between spot cotton and the future market for the same cotton on a given date. The basis for strict middling as of a given date, for example, may be 50 points on the future month of December. So long as this difference of 50 points is maintained in the relationship of the spot cotton to the December future contract, there is no basis risk. But there are many factors

always operating to change the relationship between the spot quotation and the future quotation. For example, in the latter part of the cotton growing season, storms may seriously damage the quality of the cotton to be harvested, without substantially decreasing the quantity. Thus the future middling transaction may not be materially disturbed, but the relation between a given grade of spot cotton, say, strict middling, and the quotation for the future contract, may be very considerably altered. This will be due to the fact that the storm caused a relative scarcity of strict middling in the advanced stage of the crop as contrasted with the early stage of the crop. In other words, there has been a change in the basis against which the merchant cannot protect himself. This discussion can no doubt be made clearer by taking a concrete example.

Suppose in July the merchant contracts with a mill to deliver 1000 bales of cotton. Inasmuch as cotton is generally sold at a price including the cost of delivery to the purchaser, the merchant would quote a price of so many points on the prevailing spot quotation for the particular grade of cotton involved. The price quoted would also include the merchant's profit. Suppose, however, the mill did not wish to purchase the cotton at a fixed price, but desired to purchase it on call. The contract might then read to the effect that 1000 bales were to be sold at 150 on December, the 100 points representing the cost to deliver the cotton to the mill and the 50 points representing the profit of the merchant.

Now suppose the merchant does not buy in the spot cotton in anticipation of call and that the call is made on October 1st, at which time the price of December futures is 20 cents. This means then that the merchant will receive $21\frac{1}{2}$ cents a pound for the cotton which will be delivered to the mill. Immediately upon calling the cotton, the mill has of course instructed the merchant's broker to buy 1000 bales of futures for his account. We will assume that on call date the spot price of strict middling is equal to or 'even' with the price of the December future contract. These futures

would then be bought on the basis of 20 cents a pound. Thus the merchant is short 1000 bales of spots and long 1000 bales of futures. He has his profit already figured in on the spot price and there would be nothing to worry him if the relation between the spot price and December futures would remain constant throughout the time that he buys in the spots to make delivery to the mill. That is to say, he would have nothing to fear if the basis did not change. But now suppose that before he has bought in his spots, there is a storm which results in lowering the grade of cotton and creates a relative scarcity of strict middling. The basis, instead of remaining 'even,' may increase to where the merchant, in order to get the strict middling for delivery to the mill, will have to pay 70 points on December. We will assume that his spots actually cost him 70 points on December, and suppose that December, at the time he purchases his spots, is selling at 22 cents. His spots would therefore cost him 22.70 cents, to which must be added 100 points to cover cost of making delivery to the mill, thus making the cost delivered 23.70 cents. Immediately upon buying the spots, he would sell 1000 bales of December futures as an offset to the 1000 bales of futures purchased for his account at the time the mill made its call. The transactions and the resulting loss may be summarized as follows:

	<i>Cents</i>
<i>Spots:</i> Sold 1000 b/c @.....	21.50
Bot 1000 b/c @.....	23.70*
Loss on spots.....	2.20
<i>Futures:</i> Bot 1000 b/c @.....	20.00
Sold 1000 b/c @.....	22.00
Gain on futures.....	2.00
Net loss.....	.20

* Includes 1¢ delivery cost.

Thus, instead of making a profit of 50 points which the merchant had anticipated, he actually completed the transaction with a loss of 20 points or \$1 per bale.

Insurance: It is customary for the cotton merchant to

take out each year a blanket policy which will cover loss at any one place, where the cotton may happen to be, up to a given amount. For example, if the cotton firm has \$1,000,000 of cotton stored in a Galveston warehouse and also \$1,000,000 of cotton stored in a Dallas warehouse and a fire should occur at both places, the firm would be permitted to collect \$1,000,000 of insurance in each case, provided it had a blanket policy in the amount of \$1,000,000. But if all the cotton were stored either at Galveston or at Dallas, only \$1,000,000 could be collected, even though the entire \$2,000,000 of cotton were destroyed. It is customary in the case of foreign shipments for a merchant to avail himself of a privilege allowed in the policy and issue against each foreign shipment a certificate of insurance, describing the shipment as to number of bales, marks, etc., and drawn for an amount approximately equal to the value of the shipment. These certificates are usually drawn to the order of the merchant, endorsed by him in blank, and attached to the draft drawn on the purchaser of the cotton or on the bank financing the shipment. Upon the issuance of these certificates, the merchant notifies the insurance company or its agent, and when this is done, the outstanding certificates do not in any way affect the general liability of the company under the blanket policy. That is to say, a merchant may issue any number of certificates covering specific shipments of cotton without affecting the insurance company's liability to pay the full amount of the policy in case of loss on cotton stored at any one place, provided the company is notified of the issuance of the certificates.

In the case of domestic shipments, particularly shipments to New England, it is customary for the insurance to be carried by the buyer, in which event the banker discounting the draft drawn by the merchant on the buyer would have no protection by virtue of the merchant's blanket policy. It is customary, however, for the New England buyers to carry blanket insurance, with the result that even though the cotton may be destroyed in transit, they will

nevertheless honor drafts drawn upon them and proceed to collect from their insurance companies.

The cotton merchant's banker usually receives from the insurance company a letter giving full details as to the blanket policy carried by the merchant and the bank is protected by an assignment of the insurance to it, as its interest may appear.

Basis of extending credit to the merchant: The principal consideration is, of course, the collateral represented by bills of lading and warehouse receipts. It is important in the case of warehouse receipts to know that they are negotiable, properly indorsed, and issued by a responsible and independent warehouseman, preferably one who is licensed and bonded under national or state laws. To some merchants of high character and standing, substantial open lines may be granted, but in most cases the entire line is at practically all times secured by a margin of collateral.

A great deal of reliance cannot be placed upon the financial statement of a cotton merchant as a basis of credit, particularly at that season of the year when he is borrowing most heavily to finance his large purchases of cotton. The reason for this is that the merchant's affairs are at this period in a constant state of flux and are subject to very great changes almost overnight. The result is that a statement one week old may not at all reflect the true condition of the borrower's business.

Much depends upon the moral risk. A bank can afford to be somewhat less meticulous in its relations with a firm, provided it is satisfied that the members are not simply gamblers but are real merchants, and that they are never to any considerable extent playing the cotton market 'open.' The merchant should have his uncovered forward sales or unsold spot cotton protected by hedges. The moral risk is also important in another respect: namely, that from time to time it will be necessary for securing documents to be released to the merchant on a trust receipt, in order that cotton may be shipped and substitution of col-

lateral made. If the merchant is morally irresponsible, the trust receipt will be of little value.

As previously pointed out, the merchant will do his heaviest borrowing in the fall and winter. His borrowings should decrease steadily from January to midsummer, when they should be, in the ordinary case, completely liquidated.

Owing to the extremely seasonal character of the cotton merchant's demand for credit, and also owing to the peculiar nature of his business in that his line is usually fully secured by exceptionally readily marketable collateral, it would be expected that during the fall and winter his borrowings would be very heavy in proportion to his net worth. In fact, borrowings sometimes amount to two or three times the net worth. It would be impracticable for a concern with even a large net worth to attempt to finance all of its operations without outside help, for the reason that, since its peak need of capital is confined really to a short period, it would be placed at a disadvantage in the investment of its capital during other seasons of the year.

Analysis of statements: (See Appendix V, pages 287-353.)

B. THE DISTRIBUTION OF FARM IMPLEMENTS

Seasonal character of the business: If the distributor carries a full line of implements, he should do a fairly substantial volume of business throughout the year. There are two major movements in the demand for implements, however — the spring movement and the fall movement, of which the former is the more important. During October and November and the winter months, the spring demand for plows, harrows, planters, and cultivators is keenly felt. These tools will be needed for preparing the ground and sowing the seed in the spring. Thus during the fall and winter months there is a large outflow of implements from the distributor's warehouse to retail establishments. During the late spring and throughout the summer months, goods will be leaving the distributor in response to the fall demand. At this time a substantial number of plows, harrows,

and grain drills will be sold. The movement of the heavier implements is somewhat different from those just discussed. Tractors move out in June and July for the wheat-growing districts and also for that section of the state given over to the production of rice. They move out earlier in the year, however, when destined for the cotton-producing regions. Threshing machinery moves out in large volume in May and June, in preparation for the approaching harvest season.

The above paragraph deals with the seasonal aspects of the demand for farm implements. In general, this demand follows closely the seasons of the year in which the several classes of implements are used. Looking at the matter from the standpoint of the distributor's collections, we find that there is really only one season in this country, and that is the fall of the year. We shall find this to be true when we take up a discussion of the terms of sale. However, in the case of the wheat and rice sections of the state, the collection season is advanced from fall to late summer, but wheat and rice production forms only a small part of the farming activities of the state. The fall collection season is also and particularly important because of the fact that so large a part of the distributor's sales are made on a note basis — the notes being drawn to mature in the fall, when, owing to the harvesting of the crops, the farmers who have bought from the retailer (the distributor's customer) will have funds and will thus enable the retailer to settle with the distributor. There is a tendency to abandon the long terms of credit reflected in the note-using custom of this line of business, and to sell the retailer on so-called regular terms presently to be discussed.

Terms of sale: As just stated, the distributor is beginning more and more to demand that the retailer take the discounts offered and settle for his purchases with cash. And the retailer likewise is gradually trying to work the greater part of his trade to a cash basis also. On the goods moving out in the fall and winter (on the so-called spring terms), a discount of 5 per cent is allowed if the bill is paid not later

than February 1st — or, in some cases, March 1st. If the bill is not paid by about May 1st, the account will be closed out by note or trade acceptance due in the fall and bearing 8 per cent interest. Of course, instead of selling on open account and subsequently closing the account out by note or acceptance, in the event of non-payment, the distributor may initiate the transaction with a note or acceptance stipulating that if payment is received by February or March 1st, a discount of 5 per cent will be granted together with the remission of the interest included in the amount for which the note or acceptance was drawn. Goods sold in the summer (on so-called fall terms) are subject to a discount of 5 per cent for payment by October 1st, with net terms of January 1st, — that is, the account will be closed out by note on January 1st if payment has not been received. Separators (which, like tractors, involve a considerable outlay on the part of the farmer) are usually sold for one half cash on delivery with the balance due after harvest, that is, in August or September. Sometimes they are sold for one third cash and the balance in two years, but such terms are rare. Harvesting machinery is ordinarily sold on a discount basis of 5 per cent for payment after harvest (August or September), with net terms of October 1st. Tractors are often sold on the same basis as separators, although some distributors demand cash in October following the sale of a machine with a discount of 5 per cent for cash on delivery of the tractor to the farmer any time before October 1st. The distributor will allow the retailer to anticipate the payment of his bills at the rate of 8 per cent per annum.

How the distributor is financed: There are several different types of distributing organizations in Texas. Many of them are private corporations, partnerships, or individual enterprises. They finance themselves just as do similar forms of organization in other lines of business — by means of borrowing on open note at their banks and on open account with the factories with which they deal or which they represent. Many of the distributing companies in Texas, how-

ever, are simply subsidiary corporations of the manufacturing companies in the North and East. They keep separate books, of course, and are charged with all goods sent them by the parent concerns. They may, and often do, borrow in their own names. It is quite likely, though, that the bulk of their financing will be done by the factory itself. The local company may send its receivables (notes) direct to the home office as soon as received for goods sold, and the latter will credit the local company with the amount represented. In this way the local company will pay for the merchandise charged to it. The home office may borrow against the receivables by pledging them as collateral to notes placed with its own banks. The home office will forward the receivables back to the local company for collection and will charge its account with each receivable at due date, whether collection has been effected or not. There are other distributors which are nothing more than factory branches, maintaining no separate books of account and doing no borrowing in their own names. They depend upon the head office to do all their financing. It will be readily understood that the banker may have to have detailed information concerning the financial condition of the head office if he has extensive dealings with either of the last two forms of distributing organization.

The balance sheet: The following points are worth remembering when undertaking the analysis of the financial statement of a distributor of farm implements:

(a) The farm implement industry is absolutely dependent upon the prosperity of the farmer for its well-being. In periods of agricultural depression, the distributor's business is very poor and he may suffer heavy losses on account of bad debts.

(b) Inventories are heaviest in the fall and winter and lowest in August.

(c) Receivables are highest in August and September, which is just prior to the normal fall liquidating season. Borrowings are also heaviest at that time.

(d) Receivables are lowest in October and November, after the fall crops have been gathered and marketed. Borrowings are also lowest at that time as a result of the collections made.

(e) Receivables would ordinarily exceed merchandise in amount during the spring and summer months, but should be less than merchandise in the fall and winter. In those cases, however, where the distributor acts as a consignee of goods or manufacturer's agent, and in those cases where a large part of the shipments are made direct from factory to retailer (the goods never coming upon the floors of the distributor), receivables might always be substantially in excess of the merchandise on hand. On this basis, the manufacturer does not charge the distributor with the goods until they are sold. The distributor does not carry them in his assets as merchandise at any time. The receivables arising from their sale, however, do appear among his assets. There is a great deal of business conducted on the direct-from-factory plan.

(f) Gross profit should average about 30 per cent of sales.

'Fill-in orders,' or L.C.L. shipments: Plows, harrows, and cultivators are shipped locally (that is, in less than car-load lots) usually on a basis of four months net with a discount of 5 per cent for payment within thirty days.

Turnover of capital: Owing to the long terms of sale in this line of business, it is usual for the distributor to realize in the form of cash his cash investment in merchandise not more than once a year. The average inventory carried, however, may turn two or three times during the year, or even more often, if the distributor does much business of a consignment nature.

Analysis of statements: (See Appendix V, pages 287-353.)

C. THE WHOLESALE GROCERY TRADE

Inventory turnover: The fact that the commodities handled are staple, and usually of a fairly non-perishable nature, and the fact that demand is both sure and reasonably

steadily give the business a relatively high rate of inventory turnover. As a general proposition, it may be said that inventory is turned about six times a year. Of course, there are some individual commodities which are turned much more frequently, and some which are turned much more slowly. Business is normally somewhat better in the fall of the year than at other times, although there are no exceptionally marked seasonal variations. Sales may be somewhat slack in the late spring and summer, however.

When inventory turnover is calculated, the result must be interpreted in the light of the season in which the inventory was taken. A November inventory would probably be somewhat heavier than the average, while a June inventory would be somewhat lighter than the average. Therefore, a turnover figured on the basis of a November inventory would probably understate the true rate, whereas a calculation based on a June inventory might overstate it.

Seasonal character of the business: As stated, there are no marked seasonal variations in the volume of business each month, and this is particularly true of those houses which cater mainly to trade in the larger cities. In preparation for the somewhat brisker trade that usually comes in the fall, the inventory would be fairly high in the early fall months. Inventory would be high then for another reason also; namely, a very large part of the grocer's stock consists of canned fruits and vegetables which cannot be obtained from the canneries until in the fall. Inventory may remain higher than the average until the spring of the year, when it should taper off until the low point is reached in mid-summer.

Terms of purchase: The wholesaler will usually take the discounts offered him. In fact, it is stated, the house which does not take its discounts will probably be unable to operate at a profit. Some manufacturers and brokers will not deal with a concern that is not in a position to take its cash discounts. Therefore, except in very rare cases, where acceptances are customarily employed, the financial state-

ment of a wholesale grocery house should not show bills payable to manufacturers or canners for merchandise purchased. In fact, accounts payable should be relatively small. Most of the current liabilities should be in the form of bills payable to banks (or open market paper), representing money borrowed for the purpose of discounting purchases. The cash discount offered the jobber will average $1\frac{1}{2}$ per cent.

Terms of sale: Selling terms vary somewhat as between any two sections of the state. But there is a tendency in all sections for terms to be shortened. One per cent discount for cash in 10 days is the goal striven for. At the present time, terms will average from 30 to 60 days with a cash discount of $1\frac{1}{2}$ per cent for payment within 10 days. If a bill is not paid at the expiration of the net terms period, interest is customarily charged. About 50 per cent of the retailers avail themselves of the discount offered.

Terms of credit are longer in east Texas than in other sections of the state. There is still considerable selling there on a fall time basis — that is, the retailer will be carried by the wholesaler until the crops are gathered in the fall and until he, the retailer, receives payment from his customers.* The wholesaler is trying to break away from this custom, because it really involves financing the consumers' purchases.

In north, central, west, and northwest Texas two discounts a month are usually given. Purchases made between the 1st and the 15th of the month will be due for discount on the 25th, and purchases made from the 15th of the month to the 1st of the following month will be due for discount on the 10th of the following month. Except in east Texas, outstanding accounts should usually not exceed 40 days sales.

* Not infrequently, accounts of retailers in the eastern section of Texas will be temporarily closed out by notes; so that the statement of a wholesaler catering to east Texas trade might well show a substantial volume of notes receivable in August or September.

There are occasions when the retailer will not be in a position to pay his bill at the expiration of the net terms period. In such cases, the wholesaler may draw an acceptance for 30 or 60 days and discount it at the bank. But this is generally done only when there is no question as to the solvency and collectibility of the account. When an account has reached the doubtful stage, the wholesaler will ordinarily close it out by note.

The wholesaler and the bank: Bank borrowings will normally be somewhat high in the fall of the year, just prior to the full movement of the crops. Inventory and receivables would both be relatively high at that time, and likewise the jobber's need of outside assistance. After fall liquidation has had its effect, inventory and receivables should be somewhat reduced, and with the funds resulting therefrom bank borrowings should also be reduced. The open note is the normal form of borrowing from banks. It is unusual to offer security to the line, except, possibly, the indorsement or guaranty of the paper by interested parties.

Miscellaneous considerations: Gross profit will average about 10 or 12 per cent of sales. This seems low when compared with the profit in some other lines of business. In the wholesale millinery business, for example, it may be four or five times as much; but the wholesale grocer sells on relatively short time, and his risk from seasonal, style, and other causes of fluctuation in demand are small. Consequently his turnover of inventory is rapid.

Some of the more important commodities handled by the wholesale grocer are sugar, cooking compounds, tobacco, flour, spices, tea, coffee, feed and canned goods. Sales of sugar and tobacco may often amount to from 10 to 15 per cent of annual sales.

A large part of the annual sales of many wholesalers may be made up of shipments of goods in carload lots direct from factory or cannery to the wholesalers' customers. The wholesalers will have taken the orders, but the goods will never enter their physical inventories. Business of this kind

would tend to increase sales relatively to the average inventory actually carried by the jobber and would, of course, tend to raise the rate of inventory turnover.

Analysis of statements: (See Appendix V, pages 287-353.)

D. THE WHOLESALE HARDWARE TRADE

The hardware trade is somewhat complex. A large number of items are included under the term hardware, and the limits as to what is and what is not hardware are ill-defined. Distributors have extended their activities to include related lines as well as what is commonly known as hardware — automobile accessories affording the latest instance. In this section of the country it is not unusual for the hardware dealer, except in the larger cities, to carry farm implements and other heavy machinery; but for present purposes, we shall consider only those dealers who handle strictly hardware lines.

Financing the jobber's purchases: This line of business, while not so seasonal as some other lines, nevertheless has two fairly well-defined periods of more than usual activity — spring and fall, particularly the latter. Goods move out in volume for the spring trade along in February and March, and for the fall trade in July and August. Due to the great variety of lines of goods handled, many of them are decidedly seasonal. Refrigerators and ice cream freezers, for example, are sold in the spring and summer, whereas ammunition and certain classes of athletic merchandise are sold in the fall.

Inasmuch as the manufacturer supplying the jobber with the bulk of the goods he handles does not carry large stocks of finished products on hand, it becomes necessary for the jobber to place his orders with the manufacturer some six months ahead of the time when he will actually receive the goods. This long interval is consumed in the manufacturing process and in transporting the goods to Texas. The principal manufacturing centers are in the East and New England. The jobber's inventory is usually highest in May

or June and fairly high also in September; but the amount of the inventory may not show very marked fluctuations at any time during the year.

The usual terms on which the jobber buys are 2 per cent 10 days, net 30 days. The jobber in good standing will take the discount, and most of his bank borrowings should represent funds used in this manner. As a matter of fact, the bulk of the current liabilities should be made up of notes payable to banks. Datings are common on only the more seasonal lines. Ammunition, for instance, bears an October 1st dating, the goods being received by the jobber as early as April or May. Some lines of steel goods — e.g., garden tools — will bear March or April 1st datings. Ordinarily datings may be anticipated at the rate of one per cent per month.

Turnover of inventory: Since inventory is likely to be at the high point in May and June, the dealer's payables would also be at their high point as of about the same time. This would seem very early to be stocking up for the fall trade, but it is a fact that in this line of business inventories are accumulated some months in advance of the active selling season. As stated above, this is due to the fact that the manufacturer has the goods ready for delivery at that time and does not carry them himself. Moreover, the jobber is located a considerable distance from his source of supply and would on that account have to carry considerable stocks. Because in this manner he is forced to lay in at the beginning of his season practically enough merchandise to see him through his principal selling periods, the jobber does not have a very high rate of inventory turnover. On an average, he will turn his stock not more than three times a year. The trade acceptance is used to some extent, but the jobber in the best standing usually desires to take the cash discount and refrain from giving acceptances.

Financing the jobber's sales: The dealer generally grants terms as liberal as those which he receives. The customary selling terms are 2 per cent 10 days, net 30 days for staple articles, such as nails and heavy hardware, and 2 per cent 10

ays, net 60 days for the regular lines of shelf goods. The best selling season is in the fall of the year, but after the holiday season inventories should be materially reduced and should be at about the low point the first of January. The end-of-season inventory is said to run between 70 and 80 per cent of the average annual inventory. Receivables are highest in August and lowest in January. Some houses report them high in the spring also.

Miscellaneous considerations: Gross profit will amount to about 20 per cent of sales. The usual form of borrowing is on the open note. Bank lines will be more fully used from August to October than at any other time, although borrowings may be substantial also in the spring. They should be low, however, in January and February, due to the preceding seasonal movement of the crops and the liquidation resulting therefrom.

Analysis of statements: (See Appendix V, pages 287-353.)

E. THE HAY, FEED, AND GRAIN BUSINESS

How the dealer buys: The dealer may have local buyers in the country at harvest time, and may own elevators in some of the more important railroad towns of the grain belt for storing the commodities bought. Then he may buy also from other local elevators, and at times he will purchase considerable grain from the terminal markets at Omaha and Kansas City. He pays cash for his purchases, the sellers drawing sight drafts upon him with bills of lading attached.

How the dealer sells: Generally he sells on the same terms as those on which he buys. Shipments are made against sight draft with bill of lading attached. If the dealer does not discount these drafts, but merely sends them out for collection, they will appear on his statement as 'drafts out for collection,' or they may be included with and called accounts receivable. In many cases, however, it is customary for the dealer to take immediate credit for the drafts by discounting them with his bank, in which case, of course,

they would not appear on the statement at all. Banks usually like this business and handle it in addition to the full line of credit which may already have been granted the dealer, because the drafts are very liquid and are secured at all times.

Seasonal character of the business: The dealer's heaviest demand for money from his banker occurs in July and August for the purchase of wheat and in the fall of the year for the purchase of corn and hay. The demand is strongest at those seasons of the year because of the fact that the heavy demand for feed comes in the winter months when there is not much pasturage available and because of the fact that the new crops are available and must be purchased then. By early spring, the load should begin to decrease; inventories should be fairly rapidly declining and the line with the bank undergoing steady reduction. By May or June, the dealer should ordinarily be in a very liquid condition, and it is not unusual for merchandise inventory and borrowings to be entirely missing from a statement rendered at that time. It is to be expected that this should be so, for the dealer should not carry much of the old crops forward into the new year.

How the dealer uses the bank: As before mentioned, the dealer may discount at his bank the drafts he has drawn, and thus obtain immediate credit, the bank charging him interest only for the actual time required in collecting them. Then again the dealer may simply use his bank as an agency for collecting the drafts, obtaining no credit therefor until the collecting bank has actually received funds from the drawees.

If the dealer is going to buy up any considerable amount of the commodities dealt in at any one time, he may need much more in the way of funds than he can get by discounting such drafts as he may have drawn. Therefore, if he is in good standing, he will have an open line of credit at his bank in an amount reasonably proportional to his net worth. In addition to this line, he may at times receive con-

siderably more credit on bill of lading or warehouse receipt security. In this respect, the grain and feed dealer is not unlike the cotton merchant.

Points in the analysis of a dealer's statement: The merchandise inventory of the dealer may fluctuate widely during the season, although it would ordinarily be of a fairly substantial amount during the fall and winter months, especially if the dealer owns his elevators or other storage facilities. On the other hand, a very large volume of the season's business may be made up of sales of commodities which have been sold as soon as bought, and which may never appear in the actual physical inventory. It is not unusual for the merchandise inventory of a dealer to show a turnover rate of twenty-five times a year when compared with sales.

Owing to the seasonal character of the business and owing to the fact that the dealer is in a position to, and does, give security on a large part of his line, it may very well happen that when the busy season is in full swing, the total borrowings will appear heavy for the concern's net worth. Here, again, the similarity between this business and that of the cotton merchant is seen.

In analysing the statement, the banker should remember the nature of the concern's inventory, its staple character and salability, and the exceptional liquidity of its receivables, provided they are mainly composed of drafts in process of collection. The dealer should give not merely the dollar value of the inventory on his statement. He should give also the physical quantities in order that the banker may check the valuations against market quotations.

Unlike the cotton merchant, the grain dealer in this part of the country does not make it a practice to hedge his purchases. He buys his merchandise, and takes his chance with the market.

Analysis of statements: (See Appendix V, pages 287-353.)

F. THE WHOLESALE JEWELRY TRADE

Classes of goods handled: The three principal classes of goods in which the wholesale jeweler deals are diamonds, watches, and 'jewelry' — the latter term applying to practically all the great number of articles handled by the jobber except diamonds and watches.

Terms of purchase: Before the War, it was common for the jobber to receive very long terms on most of his purchases, but of recent years, there has been a tendency on the part of the manufacturers and importers to shorten terms. However, the jobber is still able to purchase a large part of his wares on long datings which correspond with his normal spring and fall seasons. The manufacturer, it will be understood, desires to get his orders in as soon as possible in order to spread his operations as evenly as possible over the entire year. As a general rule, however, it may be said that the bulk of the jobber's purchases are now made on an open account basis, with terms of 30, 60, and 90 days and with cash discounts offered of from three to six per cent. Diamonds are often purchased on a note basis.

Terms of sale: For the same reason that prompts the manufacturer to grant datings to the jobber, the latter also grants datings to the retailer on the greater proportion of his jewelry sales. Goods sold for the fall season — by far the best season — bear datings of January 1st, while goods sold for the spring season bear datings of July 1st. In most cases a cash discount of six per cent is allowed. One large jobber reports that about half his sales are made up of goods sold on datings. In the case of watches, terms are usually six per cent 10 days with net terms of four months; and in the case of diamonds, the terms are usually three per cent 10 days with net terms of four months, although some diamonds are sold on a net cash basis.

Use of note and trade acceptance: Where goods are sold on long time, such as four months, the jobber may take the retailer's note. In some cases he may draw a trade acceptance on the retailer. As a general rule, however, the Texas

jobber takes a note or trade acceptance only to close out slow accounts. It is not usual for the jobber to give his note or acceptance to the manufacturer if he is in good standing, regardless of the terms on which he buys, except, in some cases, with regard to diamond purchases. The statement of a wholesale jewelry house might well show a substantial amount of notes receivable. It is stated that, on an average, outstanding accounts should represent around 90 days sales.

Seasonal aspects of the business: As noted above, the jobber's best season is in the fall of the year. This country is in funds at that time. Moreover, the holidays occur at that season. Inventory would be highest in June, July, and August in preparation for the fall trade. The salesmen begin their canvass of the trade in June. For the spring season, inventory is heaviest in February and March. The jobber is leaning most heavily upon his banker in October (for the fall season) and in April (for the spring season). It will readily be understood why his borrowings should be heaviest at those times. In the first place, a very large part of his bills are then coming due for discount; and in the second place, since most of his sales have been made on January and July datings, his collections will not be coming in in volume for some time.

Inventory and receivables are lowest in January, after the holiday season. A statement rendered as of February 1 should show the jobber in his most liquid condition.

Miscellaneous considerations: If the jobber can turn his inventory as much as twice during the year, he considers that he has done well. Owing to the slowness of the inventory turnover and the long terms of sale, a fairly high gross profit is characteristic of the business. This profit will amount to about 30 per cent of sales.

Analysis of statements: (See Appendix V, pages 287-353.)

G. THE WHOLESALE PAPER TRADE

There are two classes of jobbers in this line of business: those who deal principally in coarse papers, such as cartons

and wrapping papers, and those who deal in papers of finer quality, such as newsprint and bond or writing papers. There are, of course, many houses which deal in all kinds of paper, both fine and coarse.

Terms of purchase in the trade: Newsprint is usually bought on a net 30-day basis. Finer grades of paper are bought on a 2 per cent 30-day basis. It should be noted, however, that terms and the rate of discount may vary considerably with the kind of paper bought, but the above terms may be taken as average. In general, terms are short, 30 days being the usual limit.

The jobber of the coarser grades of paper will ordinarily buy on a 2 per cent 30-day basis. In some cases, however, the manufacturer will grant extra time of 30 to 60 days and may still allow the discount, although this is not usual. In those cases where extra time is granted, the account may be carried open for the first 30 days and a note or trade acceptance taken for the extra period.

Terms of sale: Usually the jobber grants about the same terms as he receives, 2 per cent 30 days. The dealer in coarser papers, however, sells most of his products on a 2 per cent 10 days, net 30-day basis.

Seasonal character of the business: Other than a somewhat more active business in the fall due to the general improvement in most lines of business at that season of the year, there is no considerable seasonal fluctuation in the business. Collections are not so good in the summer months as at other periods of the year, and receivables may approach a high point just before crops begin to move. At about this time also inventories begin to increase somewhat to take care of anticipated better business during the fall. Borrowings from banks as well as accounts due trade creditors are at or near their high points at this time of year, inasmuch as they are but the reflection of the load the business is carrying in the form of merchandise and receivables. As one would expect, the end of the year or early spring will normally find the business in its most liquid condition, because

the fall trade will have spent itself, collections will have been made and indebtedness reduced. It should be repeated, however, that the business runs along fairly uniformly throughout the year.

Because of the essentially non-seasonal nature of the business, it is not customary for bank lines to be retired in full one or more times a year. There would probably be a tendency to call upon banks for accommodation to a greater extent in the late summer and early fall than at other periods; still, as a whole, the need for accommodation is fairly steady throughout the year. Therefore the banks, having made a permanent contribution, so to speak, to a concern's working capital, should watch the trend in its volume of business, the collection policy, and in general the method of purchasing and handling the inventory.

Points in the analysis of the statement: A normal turnover of merchandise for a house dealing in newsprint and the finer grades of paper is from three to four times a year. The turnover is more rapid, usually, in the case of houses which handle coarse papers, a turnover of from five to six times being rather common. In this connection it should be stated, however, that frequently a large part of the sales of a dealer in coarse papers may be on the direct-from-factory plan, such as was discussed in connection with the wholesale grocery trade and farm implement trade. It is stated that in some cases from 20 to 25 per cent of the annual sales may be made up of merchandise that has never been brought into the dealer's house. This fact would tend to speed up inventory turnover and to increase receivables relatively to inventory.

While for both classes of papers, fine and coarse, the usual terms of sale are on a 30-day basis, outstandings in the amount of 60 days sales are not regarded as too heavy. Thus the turnover of receivables and of inventory would be about the same, and this fact together with the fact that the customary gross profit in the business of about 25 per cent of sales would be included in the receivables would tend to

make receivables about the same in amount as inventory at statement date. There might be very little spread between the two items at that time.

The jobber will ordinarily find it to his advantage to borrow from the bank in order to take his discounts. In fact, it may be said that except in those rather exceptional cases where some special form of settlement may have been agreed upon (such as the note or trade acceptance), accounts payable should represent not more than the current purchases not yet due for discount.

If indebtedness should exceed or even equal net worth, it would indicate a condition of undercapitalization.

Analysis of statements: (See Appendix V, pages 287-353.)

H. THE WHOLESALE PRODUCE TRADE

The principal classes of products handled by the trade are fruits, vegetables, and, in some cases, poultry and eggs. The commodities making up these classes are for the most part perishable, and this fact has an important bearing upon the credit problems which arise in connection with the trade.

Seasonal nature of the business: The period of greatest activity in the trade is from early fall to early spring, or from September to April. Business is especially active during the Thanksgiving and Christmas holiday period. June, July, and August are usually the duller months of the year. Trade is good in the fall and winter for several reasons. In the first place, the movement of crops at that time gives a natural stimulus to practically all lines of business. In the second place, the produce dealer does not have the competition of local gardeners and truck farmers, who, during the spring and summer months, supply no small part of the demand from the retail trade and consuming public.

Merchandise inventory would be relatively high throughout the fall and winter. It is generally at its highest point about the middle of December, for stocks will have been accumulated in anticipation of the holiday trade, and the stocks of potatoes and fruits (especially apples) carried in

storage will have reached their peak. Borrowings would naturally be highest at that time of year also. Receivables, too, would be high then, owing to the increased volume of trade; but they might not be so high as in late summer, because collections are much slower during the summer months than after the cotton crop has been gathered. By April or May the trade is beginning its retreat, so to speak, before the advance of products from local gardens and truck farms, so that by June the produce dealer should be in a liquid condition. He should have sold most of his merchandise, collected his receivables, and reduced his borrowings. A June statement would probably make a more favorable showing than one rendered at any other time, and many houses close their fiscal year on June 30 for that reason.

Terms of purchase and sale: Most purchases are made in carload lots and through brokers who are in constant touch with producers or their representatives. Payment for purchases is usually in the form of check or cash to take up drafts drawn with bills of lading attached. The drafts are drawn at sight by the sellers of the commodities purchased by the dealer. Although less than carload lot or local purchases are often made on open account, as a rule accounts payable should not appear on a statement in any substantial amount. The current liabilities should take the form mainly of notes payable to banks, representing money borrowed to take up sight drafts. Except for certain commodities, such as apples, which are bought for storage, purchases do not run much more than ten days or two weeks ahead of sales. That is, the dealer will not usually have on hand more than enough of one commodity to supply his trade for ten days or two weeks. The principal reason for this is to be found in the perishable nature of most of the commodities he handles. Inventory on hand at any one time should, therefore, be low in proportion to the total volume of business for the year. This proportion would, of course, be lower in June than in December, particularly, if any considerable amount of commodities were in storage in the latter month.

The dealer usually sells the retailer on weekly terms, and allows no discount for payment on delivery. Selling terms are short because the dealer is accorded no terms at all on his purchases, and because the retailer should dispose of the goods quickly on account of their perishable nature. He should sell principally for cash or on very short terms and thus be in a position to make early remittance to the dealer. As a matter of fact, however, the retailer may take much longer than the weekly terms granted. On this account, and also on account of the fact that the dealer carries a comparatively small inventory, it is not uncommon for receivables to exceed merchandise inventory at all seasons of the year. The spread would be narrower in the winter than at other times for reasons already explained. As long as the receivables are reasonably current, however, say, not more than fifteen or twenty days old on an average, the banker need not be particularly concerned over their relation to inventory. He can check the age of the receivables roughly by comparing them with the annual sales figure. Inasmuch as it is not customary for the dealer to sell on a trade acceptance or note basis, the presence of such paper in the statement would suggest the closing out by that means of certain slow or doubtful accounts. If the paper appeared in large amounts, it would reflect adversely upon the credit policies of the dealer.

Miscellaneous considerations: Owing to the short terms of sale and rapid turnover of inventory, the current ratio in this line of business need not be so high as in some other lines. If the various items on a given statement are in proper proportion to each other, a ratio of from $1\frac{1}{2}$ to 2 for 1 may be satisfactory. The ratio should be higher in June than in December, ordinarily, because of considerations already mentioned. Another thing worthy of note is that if the dealer owns storage facilities, he may have a substantial investment in such assets as buildings, cold storage equipment, and machinery. This investment may appear disproportionate to the working capital, but this is to be expected, be-

cause a very large volume of business can be done on a relatively small working capital owing to the rapidity of the turnover of receivables and inventory.

Analysis of statements: (See Appendix V, pages 287-353.)

I. THE WHOLESALE WEARING APPAREL TRADE

In this section we shall consider the following trades: wholesale dry goods, wholesale millinery, wholesale men's hats, and wholesale shoes. These trades have about the same seasonal variations in their volume of business, and in many respects are very similar to each other.

Terms of sale: There are two very well-defined seasons in these lines of business, a spring season and a fall season, of which the latter is the more important. The spring season extends from December to April and the fall season from June to October. Goods move out, therefore, for the most part on datings of April 1st or October 1st. Men's straw hats for the spring and summer trade, however, will usually carry a May 1st dating. The discounts allowed vary from net thirty days in the case of wholesale shoes to as much as 6 per cent 10 days and 5 per cent 30 days in the case of wholesale millinery. Dry goods are sold on a 2 per cent 10-day basis, while men's hats carry terms of 3 per cent 10 days, 2 per cent 60 days, net 90 days.

Terms of purchase: With the exception of the millinery trade, datings are not commonly granted the jobber by the manufacturer or importer. A considerable proportion of the milliner's purchases, however, may be made on a September 1st dating for the fall season and a March 1st dating for the spring season — discounts of 6 per cent being allowed for payment by the 10th of the month, and 5 per cent for payment by the end of the month. But most of the sales made to the wholesaler of millinery as well as practically all those made to the wholesaler of men's hats are on an e.o.m. basis — that is, the bill is due for discount on the 10th of the month following the purchase. The discount on millinery amounts to 6 per cent for payment within 10 days and 5 per

cent for payment within 30 days. A wholesaler of men's hats receives a discount of 8 per cent for payment within 10 days.

The dry goods jobber buys his merchandise on a 2 per cent 10 days net 60 days basis, and the discount allowed the wholesaler of shoes ranges from 5 to 7 per cent with net terms of 30 days.

It will therefore be seen that for each of the trades in question the terms of purchase are usually much shorter than the terms of sale. This imposes an added burden upon the wholesaler inasmuch as he must not only finance his purchases but must also frequently carry his customers for an extended period and may have to borrow somewhat heavily from his bank in order to do this. With the substantial, and frequently very large, discount allowed by the manufacturer and importer, no wholesaler in good standing would forego taking advantage of it, although he may have to borrow from his bank in order to do so. In fact it is stated that the discount on purchases may amount to as much as 50 per cent of the net profit in the wholesale hat trade.

Points to remember in the analysis of statements: Since the lines of business which we are considering have two very well-defined seasons, their borrowing needs should respond accordingly. Inventories, receivables, and payables would ordinarily be heavy at the beginning of the spring season, but more especially so in the late summer (that is, July and August) when the brisk fall movement begins. The wholesaler will usually be in his most liquid condition about the end of November. November is a between-seasons month. Collections should be well in hand and current liabilities reduced to the minimum. Statements are therefore usually rendered as of about that date.

Frequently at statement date the wholesaler will have commitments outstanding for merchandise for the forthcoming season. These commitments of course should be clearly set forth as a footnote to the statement inasmuch as they might prove a source of embarrassment in a period of

falling prices. Generally speaking, receivables should not exceed or even equal merchandise inventory, although at certain seasons of the year there might be no great spread between them. Since the business is handled almost entirely on an open account basis, the statement should not show any considerable amount of notes receivable or notes payable to trade creditors. Their presence among the assets would probably indicate slow or doubtful accounts and if they appeared among the liabilities they would reflect adversely upon the credit standing of the merchant. Trade acceptances are not employed to any considerable extent.

The normal rate of inventory turnover based on sales at cost and gross profit based on sales are estimated as follows:

	TURNOVER	GROSS PROFIT
Wholesale dry goods.....	4½ times.....	16%
Wholesale millinery.....	6 times.....	30% plus
Wholesale men's hats.....	2½ times.....	30% plus
Wholesale shoes.....	4 times.....	18% (Except on women's novelty shoes which carry a much higher margin of profit.)

It should be pointed out that each of the lines of business considered in this chapter is subject to considerable risk from changes of style and this is particularly true of the wholesale millinery trade. On this account the current ratio should never fall below two for one and at those seasons when the business is in its most liquid condition should rise to from three to five to one.

Analysis of statements: (See Appendix V, pages 287-353.)

CHAPTER VIII

RETAILING

A. THE AUTOMOBILE DEALER

The organization of the trade: The factories sell their product to distributors who represent them in certain territory. The shipments of cars may be made to the distributor direct from the factory or from a factory branch, if the latter happens to be more conveniently located with reference to the distributor's territory. The distributor then sells his cars to dealers in various parts of his district. He may also act as a dealer and sell at retail in the city of his location. The dealers, particularly the more important ones, may in turn have sub-dealers in outlying country towns of the territory allotted to the dealer. It will therefore be seen that the distributor is first of all a wholesaler, but that he may also be a retailer; and that the dealer is essentially a retailer.¹

Financing the dealer's purchases: Most manufacturers sell their cars on a cash basis. They draw sight drafts on the dealers with bills of lading attached covering the shipments of cars. It becomes the individual dealer's concern, therefore, to make such arrangements as he can for the money needed to lay in his stock. He may furnish all of it himself or, more likely, he may borrow part of it from banks or other creditors. In those cases where bank credit is used, the bank may require that the cars be stored and warehouse receipts issued against them and pledged to secure the advances made. Before a car is released, the purchase price must be paid to the bank.

While what has just been said, with reference to cash being the basis of purchase on the part of the dealer, is gen-

¹ Of course, manufacturers sell a great many cars direct to dealers—i.e., the distributor is not always an intermediary.

erally true, there are some manufacturers who, either themselves, or through affiliated finance companies, grant credit to the dealer in order to facilitate the movement in carload lots of cars out of the factories during the winter months. A cash payment is required of the dealer, the manufacturer drawing a sight draft for the amount (from 15 to 20 per cent of the list price) at the time the shipment is made. Attached to the draft will be a trust receipt and notes (one for each car) covering the unpaid balance — both the trust receipt and the notes to be signed by the dealer. This arrangement is used when the dealer is to be permitted to keep the cars on his floor. The trust receipt retains title to the cars in the manufacturer or finance company. The notes are drawn to mature in the spring, when the dealer's active season will begin, and must be paid before the cars may be sold. In the event the cars are delivered to a warehouse instead of to the dealer himself, a warehouse receipt will be attached to each note instead of a trust receipt. Upon payment of the note, the dealer may obtain the receipt and withdraw the car from the warehouse. The manufacturer or finance company may leave the receipts and notes with a local bank for the convenience of the dealer.

Financing the dealer's sales: While the dealer will receive all cash in a few of his sales to the public, the great majority of such sales are on an installment basis. Usually from one fourth to one third of the list price will be required as a cash payment from the purchaser, the balance to be paid monthly or at other intervals, as may be agreed upon.¹ The purchaser executes an installment note for the unpaid balance (or he may give a separate note for each installment), which is secured by a chattel mortgage on the car sold. The note will ordinarily run from ten to twelve months, although longer terms are not uncommon.

¹ In the case of the more expensive cars, much larger cash payments are required, and a large part of the sales are on a cash basis — this, on the theory that the class of people able to buy an expensive car ought, in large measure, to pay cash for it.

Inasmuch as a normal inventory turnover in this line of business is from three to four times a year, it will readily be seen that if the dealer had no way of disposing of the notes taken from the purchasers of his cars, he would soon have his capital invested in receivables of comparatively long maturities. An institution known as the finance company has arisen to meet the dealer's need in this respect. By arrangement between the dealer and the finance company, the latter will purchase the notes receivable of the former. The dealer will usually endorse the notes with recourse, although there are finance companies which purchase receivables endorsed without recourse. If the dealer is of some considerable responsibility, his bank may agree to give him immediate credit for drafts drawn upon finance companies, when accompanied by customers' notes properly endorsed and insurance policies covering the cars involved and chattel mortgages, or other securing documents, carrying title to the cars. It is clear, therefore, that the finance company enables the dealer to sell his cars on practically a cash basis and that this in turn enables him to meet the manufacturer's demand for cash. The charges made by finance companies are heavy, and, of course, are paid by the purchasers of cars. Some idea of just how heavy the charges are may be gained from the following actual and typical example:

A certain make of automobile sells delivered in Dallas for \$1090 for the touring model. The initial payment of one third cash would amount to approximately \$370, leaving a balance of \$720 to be paid out in twelve equal monthly installments. The purchaser would give an installment note for this amount plus a flat discount charge of 9 per cent. The entire principal amount of the note and the interest would be paid monthly. It is plain that the purchaser does not have the use of \$720 for the full twelve months; actually he has the use of the equivalent of only \$390 for the full period. And yet he is paying 9 per cent on \$720, or the equivalent of approximately $16\frac{1}{2}$ per

cent per annum on the funds actually used for the entire period.

The finance companies obtain their working capital from the investment of their stockholders, from banks, and especially from the investing public through the issue of collateral trust notes or bonds secured by the receivables discounted for the dealer.

The dealer and his bank: If the dealer is selling his receivables to finance companies, as will probably be the case, he should not borrow much from his bank except in the spring of the year when his stocks of automobiles are heaviest. On the other hand, he may have to borrow in connection with certain side lines of his main business, such as the handling of parts and accessories and the running of a repair shop. Then the dealer may desire to carry his receivables as long as possible before selling them to a discount company in order to postpone the heavy charges made by the latter and save for himself the substantial interest charge paid by the purchasers of cars. Finally, the dealer will find it necessary from time to time to sell cars on terms unacceptable to the discount company. Receivables arising out of such sales must be carried by the dealer and may oblige him to seek accommodation from his bank. As a general proposition, the bank borrowings should not exceed the inventories on hand.

The used-car problem: It is well known that every dealer often must take in as part of the cash payment on a new car the purchaser's old car. On account of the severely competitive conditions existing in the business, the dealer is constantly in danger of bidding too high a price for the used car. These cars often make up a large part of the dealer's gross profit, and may, in many cases, absorb a substantial amount of his working capital and necessitate his borrowing heavily from banks when, otherwise, he might not have to call upon them at all. Therefore, if he cannot turn these used cars into cash, and if, in turning them into cash, he cannot at least 'break even' on the transactions, he will be

courting disaster. In short, the used car is a sort of perpetual nightmare with the dealer. He must, by virtue of the nature of his business, be a trader of old cars as well as a vendor of new ones. It is therefore not surprising to see the dealers in a large city or town conducting very vigorous sales campaigns in order to rid themselves of their accumulated stocks of used cars. To the purchasers of used cars, somewhat the same terms are granted as in the case of new cars, except that the cash payment is uniformly higher — usually not less than 40 per cent of the selling price. Finance companies will handle paper arising from the sale of used cars, and thus enable the dealer to handle this end of his business on practically a cash basis.

Miscellaneous characteristics of the business: Inventory is usually highest in the spring for the reason that spring and summer are the important selling seasons for automobiles. But the growing popularity of the closed car is tending to make the demand for automobiles more uniform throughout the year. At the present time, however, winter is the dull season of the year. Bank borrowings would ordinarily be lowest in the winter and highest in the spring.

It has already been pointed out that the dealer turns his inventory from three to four times a year and that his receivables, owing to the long terms of sale, do not turn as rapidly. Therefore, if the dealer carries a substantial amount of receivables, they may be in excess of his merchandise inventory. As a rule, however, he sells his receivables to banks or finance companies, so that they would usually not appear in very large amounts on the statement.

Some points to bear in mind: The inventory should be segregated as to new cars, used cars, and parts. Used cars, from the banker's point of view, are more or less a speculative asset. They should constitute as small a proportion of inventory as possible.

Too large an investment in parts should be avoided, because this part of inventory moves slowly. Moreover, in the event of the liquidation of the concern, about the only

market for such merchandise would be the manufacturer of the car handled, and he would buy them back only at a substantial discount.

The dealer's gross profit, or the discount allowed by the manufacturer, amounts to about 20 per cent of the list price of the car. The percentage is higher in the case of the more expensive cars and lower in the case of the very popularly priced cars.

On an average, it has been found that about five per cent of a dealer's endorsing liability on discounted receivables becomes a real liability. The banker should be kept informed regarding the extent of his dealer-customer's contingent liability.

As a rule, the dealer will have sold most of his notes receivable to finance companies, and therefore should not show a large amount on his statement. If the statement shows that he is carrying a substantial amount, and there is no reason to believe that the dealer is of sufficient means to warrant his carrying them, they may represent the dregs of the receivables — those which the finance companies have refused to take.

The motor truck: What has been said above about automobiles in general applies for the most part to motor trucks also. It seems, however, that manufacturers more uniformly grant credit terms to dealers handling trucks than is the case with passenger car manufacturers. The dealer is often permitted to purchase the truck by paying part cash and settling in perhaps as many as twelve monthly installments for the balance. The dealer sells on about the same terms as those on which he purchases. Finance companies discount truck paper as well as regular automobile paper.

Inventory turns about three times a year, somewhat less than in the case of passenger cars. Summer is the best selling season, although there are no marked seasonal variations in the business done. Inventory is generally highest in May and lowest in January.

In Texas trucks are handled for the most part by factory branches rather than by dealers.

Analysis of statements: (See Appendix V, pages 287-353.)

B. THE FURNITURE AND MUSICAL INSTRUMENTS TRADES

Terms of sale: The great majority of sales of furniture and musical instruments are made on an installment basis. It is estimated that the initial outlay for furniture required for the average family amounts to about \$750. In only a relatively small number of cases does the family just commencing to keep house have as much as \$750 saved up for the purpose of purchasing furniture. The installment house, however, comes to the aid of the purchaser by offering credit facilities and thus enabling him to purchase out of future income. The installment plan greatly increases the buying power of the customer.

The purchaser will usually be allowed to spread his payments over a period of from a few months to one or perhaps two years. Terms allowed on talking machines, however, seldom extend beyond twelve months. Band instruments sell on still shorter terms. The purchaser will sign an installment chattel mortgage note in which the terms are fully set out.

Receivables, merchandise, and current ratio: Inasmuch as the dealer is consistently turning his inventory into receivables of a comparatively long average maturity, it is necessary, unless he has an unusual amount of his own working capital available, to find some outside help in carrying them. Some houses will, therefore, at times sell their installment notes to finance companies in order to raise working capital, but this is done only when other methods of obtaining funds are not available, because the cost of such credit is high. The average maturity of the receivables will in specific cases run from eight to twelve months. Since inventory usually turns from two and a half to three times a year, it is therefore clear that if a concern is carrying its receivables they will usually be substantially in excess of the

inventory. If none of the receivables are sold, they should be high enough in amount so that monthly collections plus cash sales plus cash down payments less expenses will equal current purchases of inventory. A concern doing an installment business should show a substantial excess of quick assets over current liabilities, because receivables (and therefore the total quick assets), owing to their long average maturity, must be large in the aggregate to provide a sufficient cash income to care for maturities among the current liabilities (since the terms accorded the dealer by his creditors are not so long as those on which he sells). Moreover, receivables contain a large amount of profit, which would tend to increase the current ratio. It is stated that the current ratio should never fall below two for one.

Terms of purchase: Generally speaking, the music dealer buys his band instruments and talking machines on open account. Terms are either net 30 days, or perhaps 2 per cent 10 days in addition to the usual trade discount is allowed. Furniture and pianos are sold on a note basis, thus involving the extension of long term credit on the part of the manufacturer to the dealer. Remittances are made periodically by the dealer as his collections are effected. Piano notes are frequently made payable in three installments — four, eight, and twelve months after date, with interest at 6 per cent covering the period after the first four months. In the light of these facts, a large amount of bills payable for merchandise would not be out of place on the statement of an installment house.

The dealer does not obtain from the manufacturer terms as long as he grants the purchaser, one reason being the fact that about half the retail price is made up of gross profit. Thus, when one half, or perhaps less, of the credit period extended the purchaser has expired, the dealer has recovered the cost price of the article sold and is in a position to remit to the manufacturer.

Points in the analysis of the financial statement: There is not much fluctuation in the receivables since the install-

ment principle tends to spread the volume of business fairly evenly over the whole year. Business is somewhat better from August to December, however, than during the other months of the year due to the general speeding-up of business in the fall. Inventories are usually somewhat higher in the early fall months than at other times and bank and other indebtedness is consequently also somewhat higher then. In general the installment business is non-seasonal in character; therefore a retail furniture or musical instrument dealer may never entirely pay up his indebtedness, or even his bank lines, at any one time.

The dealer should clearly indicate on his statement whether any receivables have been sold to finance companies and what his contingent liability is. Frequently the dealer will borrow from his bank against some of his bills receivable as collateral. The statement should reveal any assets which are pledged.

The banker should obtain a schedule of the dealer's receivables classified as to age and maturity. It is stated that the best dealers will not permit their current indebtedness to exceed seventy-five or eighty per cent of the merchandise carried. Borrowings should, of course, be kept within a reasonable proportion to net worth.

A large part of the dealer's sales are made to people with small means and frequently of no established credit standing. There is on this account some risk of loss from having to repossess merchandise. On the other hand, the receivables are in nearly all cases secured by chattel mortgages on goods sold and the risk of loss is diminished from month to month as installment payments are made.

Gross profit in the business: Gross profit will frequently amount to as much as fifty per cent of sales or one hundred per cent of cost. This would appear to be high, but the merchandise handled could hardly be called a prime necessity and the demand is therefore neither so broad nor so constant as in the case of some other classes of merchandise, such as groceries. Each article handled usually involves a

rather high investment of funds by the purchaser and this restricts the volume of business which may be done on a given capital investment. Then, as stated, there is some risk of loss from goods that have to be repossessed. Finally the business is conducted for the most part in the high rent sections of the city and with a rather high labor expense.

The open account furniture house: In the larger cities of Texas there are some furniture houses which sell principally on open account instead of on an installment note basis. These houses also buy for the most part on open account and borrow from banks in order to discount their merchandise bills. The open account house, therefore, should at statement date show no very large amount of bills receivable or bills payable to trade creditors. Receivables should ordinarily not exceed inventory because they should turn from four to six times a year, whereas inventory would normally turn not more than three times a year.

There are few open account houses which do strictly an open account business and there are few installment account houses which do strictly an installment business; usually a given concern will do both an installment and an open account business, although one or the other will largely predominate.

Analysis of statements: (See Appendix V, pages 287-353.)

C. THE LUMBER TRADE

As a matter of convenience the lumber manufacturer and wholesaler will be considered in this section along with the retail lumber dealer.

I. THE MANUFACTURER

Seasonal character of operations: Strictly speaking, there are no seasons in the mill's operations. Weather permitting the mill cuts and dresses timber throughout the year.

Forms of organization: There are a great many small independent mills. There are also many very strong and large independent mills. Then it is common in this state

for a group of small mills to be under the control and management of a head office located in one of the principal cities of the state. The small independent mill may be distinguished from the other forms of organization in the trade by the fact that, due to a lack of resources and credit, it usually carries a smaller amount of cut timber and products and of receivables. A mill of this class will sell the greater part of its product to wholesalers.

Financing the mill: Borrowing from the bank is usually on open note. Some of the larger companies issue paper in the open market. As a rule, the mill will not carry much cut timber or lumber in stock. It must carry some, however, particularly of the commoner grades, on account of the fact that from sixty to ninety days are required to sundry it. The finer grades are kiln-dried, a process which requires only four or five days. In general, however, it may be said that the mill will not carry more than a month's sales in the form of cut timber and lumber. Borrowing is occasioned, therefore, principally to carry receivables and to defray operating expenses.

In this state the mills deal mainly with the retail lumber yard rather than with the wholesaler. Terms of sale are 2 per cent discount for payment within five or six days after arrival of car (to permit the retailer to inspect the shipment), with net terms of 60 days. It is said that approximately 80 per cent of the retailers avail themselves of the discount. The mills usually sell the wholesaler on a sight-draft basis.

Inasmuch as standing timber will likely be the mill's most important asset, it should be of interest to consider the method of financing its acquisition. Very often the mill will be unable to carry its standing timber on its own resources. In those cases, the timber will be bonded, the bonds maturing serially so that they may be paid as the timber securing them is cut and sold. While timber may not in its uncut state be considered a quick asset, since it is not readily salable in that condition and is usually of too

large a quantity to be used up in the current operations of the mill within a short time, nevertheless it is a semi-quick asset. If the mill has a large supply of it, it is assured of its raw material for some time to come, and at a known price. On account of the importance of standing timber to the mill, the banker should know in any given case what means the mill has taken to protect itself against loss from fire and storms. This would be a particularly important question if the timber was bonded, as then, in the event of serious loss, the mill might be bankrupted in trying to take care of the bond issue, which, it was anticipated, would be cared for by the timber itself.

How sales are made: The mills have traveling salesmen who visit the retailers and book orders. A large part of the lumber manufactured by the mills is marketed through commission brokers, who bring the retailer and mill together. At the present time increasing quantities of lumber are being imported into the state from the Pacific Northwest, and as a consequence commission brokers are taking on added importance in the trade. As a rule, lumber shipments are made to the retailer on an open account basis. The note and trade acceptance are not ordinarily used, except to close out delinquent accounts.

2. THE WHOLESALER

The wholesaler does not occupy a position of particular prominence in the lumber trade of this state, the mills usually dealing directly with the retailers. There are a few very important wholesalers, however. They ordinarily carry no inventory, merely booking orders and billing the purchasers of the lumber. The purchasers receive the lumber direct from the mill. The mill, of course, bills the wholesaler. Thus the wholesaler's statement would show no inventory, but would show a large volume of receivables. It would also probably show substantial bank borrowings, since the wholesaler must settle with the miller on practically a cash basis, whereas he must sell the retailer on as

long as 60 days' time if purchases are not discounted. The bank would therefore be called upon for assistance in carrying the receivables.

3. THE RETAILER

Seasonal character of the business: As in the case of the manufacturer, the retailer does an all-year business. The winters in Texas are usually not so severe as to interfere seriously with building operations; consequently, the demand for lumber is fairly steady throughout the year. There is some falling-off in activity in mid-summer, however, and business may be somewhat better than the average during the spring and fall.

Terms of sale: From 50 to 80 per cent of the retailer's sales will be on a secured basis. Such sales as are made on open account may be on a 2 per cent discount basis with net terms of from 30 to 90 days, but as a rule most of the sales are on a net 30 days arrangement, only the larger and more regular customers receiving the discount. In special cases, or where necessary to meet competition, very large discounts may be granted.

But, as stated, most of the sales will be on a secured basis. Mechanic's or material-man's lien notes are taken by the lumber company to cover the unpaid portion of the cost price of the completed property. These notes will run for several years. Some of them may be payable in installments. It should be remembered that most retail lumber dealers will undertake to build and finance a house for the owner of a lot. Since only about one fourth the cost of the house will be represented by the actual lumber which the retailer has furnished, it will be seen that he does a loan business almost as much as a lumber business. The lumber dealer will usually take a first lien note for 50 per cent of the value of the entire property and a second lien note for 25 per cent. If the company or dealer has sufficient resources to carry all the lien notes, they may amount on the statement to as much as four times the inventory on hand. Many con-

cerns discount a part, at least, of their receivables, and some have affiliated companies through which they issue collateral notes to the public secured by lien notes. A number of retailers are engaged in the development of city real estate. They put up houses on tracts of land which they have bought and market the completed properties.

The first lien notes above mentioned can usually be sold at par, but in this state the second lien notes may undergo very heavy discount — ranging from 8 to 30 per cent, depending upon location of the property, value, owner's equity, and many other factors.

Financing the retailer's purchases: As pointed out in the discussion of the manufacturer, terms granted the retailer are usually 2 per cent for cash within a few days after arrival of a given shipment from the mill with net terms of 60 days. Most retailers take the discount; therefore most of the liabilities shown on a retailer's statement should be in the form of notes payable to banks, representing money borrowed for the purpose of discounting bills. Then, as indicated above, the retailer may raise considerable working capital by discounting his receivables.

Miscellaneous considerations: Inventory will normally turn from three to four times a year. Gross profit will average about 20 per cent of sales. The conservative and well-managed enterprise will usually not allow its total current indebtedness to run in excess of merchandise on hand. The indebtedness should also be kept within reasonable proportion to the net worth, for the company, in its secured receivables, should have a resource upon which it is comparatively easy to realize. When receivables are sold, the company will ordinarily endorse them without recourse. Sometimes, however, they are endorsed with recourse, and in such cases the contingent liability of the company should be clearly set out on the financial statement.

Analysis of statements: (See Appendix V, pages 287-353.)

CHAPTER IX

MISCELLANEOUS

A. THE CONTRACTOR (BUILDING AND PAVING)

WE shall deal in this chapter with the two principal classes of contractors: The building contractor and the paving contractor.

Procedure in letting contracts: Both the building contractor and the paving contractor obtain their jobs through competitive bidding. The bids are estimates of what, in the contractor's judgment, it will cost to do the work bid upon, plus a certain profit. Paving contracts are let by the governing body of the municipality. The cost of improving street intersections will be borne by the municipality and the remainder of the cost will be paid by the abutting property-owners and by the railway or street railway, if any, using the street. Upon completion of the work, the municipality will assess the appropriate proportion of the cost against each abutting property-owner and will declare the assessment a lien on the property. The ordinance of assessment will provide for the payment of the amount assessed in annual installments and will provide for the issuance of assignable certificates covering the assessments against specific property-owners. These certificates are turned over to the paving contractor and can usually be marketed without very great difficulty.

Not infrequently in the case of the building contractor the owner of the property or the loan company financing the operation will require that the contractor take out a bond as a guarantee in a specified amount of the fulfillment of the contract. The bonding company, of course, before issuing a bond makes an investigation of the standing and responsibility of the contractor.

How the contractor is paid: The building contractor sub-

mits, usually at thirty-day intervals, statements covering the cost of the work that has been done and also of the materials on the ground. If the estimate is accepted, 80 to 90 per cent of the estimated cost will be paid to the contractor. The difference of 10 or 20 per cent is retained by the owner or finance company as a margin. The paving contractor collects from the city on the street intersections in much the same manner, but the intersections amount to only about one fourth of the total paving job. The property-owners pay nothing until the job has been completed, at which time they are called upon for from one sixth to one fifth of their *pro-rata* share of the cost, the remainder to be paid, as previously indicated, in annual installments (usually four or five in number).

Points to consider in the analysis of the contractor's statement: The contracting business is rather hazardous because bidding for particular contracts may be highly competitive and may, therefore, necessitate close figuring on the part of the successful bidder. His estimate or bid is at best only an intelligent guess and if it is wrong he may sustain a heavy loss. Since the contractor will usually have a number of jobs under way at any given time and since the winters in this country are usually mild and open, thus making possible continuous operations, he is very likely to be a continuous borrower. Moreover, many physical difficulties may be encountered which will delay and otherwise add to the cost of completing an undertaking, and these may often spell the difference between profit and loss. Therefore, if the bank is called upon to finance a particularly large operation, it should look over the contractor's estimates and determine, in its best judgment, the possibilities of success in carrying it through.

The contractor will usually not show a large amount of materials on hand inasmuch as they are bought only as needed for the work immediately in hand. Such materials are usually very staple, however, and readily marketable. Most of the quick assets will consist of work in progress

and, in the case of the paving contractor, paving certificates and other receivables growing out of the normal course of operations. These items are usually very liquid and of high quality because they represent debts due the contractor and are for the most part either due from responsible people (especially in the case of the building contractor) or are well secured (as in the case of the paving contractor whose paving certificates are secured by liens on real estate). As already pointed out, paving certificates are liquid because they are readily marketable. They are considered a quick asset on the paving contractor's statement.

The contractor may show a fairly substantial amount of accounts payable, representing materials bought. Terms on such material will usually average about thirty days. For the most part, however, the current liabilities should be made up of bank borrowings; this would be especially true of the paving contractor who was undertaking to carry a substantial amount of paving certificates. Owing to the fact that the receivables of the contractor are normally of high quality and liquid and because such inventory as may be on hand will usually be readily salable, a current ratio of $1\frac{1}{2}$ to 1 is, in most cases, considered satisfactory.

The bank would expect the contractor's statement to show a rather heavy investment in machinery and equipment. This would be particularly true of certain paving companies owning plants in which they manufacture paving compositions.

Analysis of statements: (See Appendix V, pages 287-353.)

B. THE OIL PRODUCER AND REFINER

Texas ranks third among the oil producing states of this country. Many Texas bankers are in various ways called upon to help finance the oil industry. Numerous interesting and intricate problems in credit arise in this connection, and some of the more important ones will be taken up in this discussion. Inasmuch as most of these problems arise

in the case of the small independent producer and refiner, of which there are many in this state, our discussion will be confined to the producer and refiner of that type. The strictly 'wildcat' producer will not be shown much consideration, as under ordinary circumstances he would not be entitled to credit from a commercial bank. His activities are purely speculative.

I. THE OIL PRODUCER

The nature of his operations: He may own his producing properties in fee, but usually he merely has them leased, paying the fee owner a certain portion of the oil obtained as a royalty. In this state, the customary royalty is one eighth. When he obtains production, he runs his oil into battery tanks on his lease, which are connected with a pipe line if the lease is located in a field which has been proved and developed. If no pipe-line connection is available, the oil is shipped out over the nearest railroad. If market conditions are satisfactory, the pipe-line company will purchase the oil at a price which is posted daily for that particular grade. The pipe-line company may, however, simply transport it to storage or terminal points on the Gulf of Mexico for the account of the producer. The usual procedure is for the company to buy the oil, title passing to it as soon as the oil is turned out of the battery tanks into the pipe lines. Settlement is made with the producer every fifteen days — usually on the 10th and 25th of each month.

Why the producer borrows from his bank: The producer borrows mainly for the purpose of carrying on development work in connection with his leases, or he may buy leases themselves with the borrowed money. Development work embraces the buying of rigs, engines, drilling tools, and all the expense incident to drilling wells. It will readily be seen that money used in this way really represents an outlay for capital purposes. The producers so recognize it and so treat it on their books. But the underlying principle of commercial banking is that the funds of the bank which

are loaned out shall be used in current transactions; that is, transactions which will at their completion provide the means of liquidating the debt. If the funds are invested in fixed assets, such as oil-well equipment, or are used for the purpose (a capital purpose) of developing oil properties, it can hardly be said that the transactions will provide the means of liquidating the debt created. The banker must, therefore, look to something else besides the immediate transaction for the return of the funds he has advanced. He looks to the production already obtained by the borrower or to that which the borrower, operating in proved territory, has reasonable prospects of obtaining. There is no certainty as to just when the producer will liquidate his indebtedness, for if he is developing lease after lease, he may need borrowed capital for an indefinite period of time. On the other hand, if the producer is not carrying on additional development, it should not take him long to pay off his indebtedness entirely after production is once obtained. Provided he were not confronted with the necessity of drilling a great many offset wells within a short space of time, the first few good producers on the lease should soon enable him to retire his borrowed money and finance the further development of that particular lease out of his own resources. In most cases, however, the producer will no more than get beyond the development stage on one lease and put it on a self-supporting basis than he will begin the development of another lease, and so on, with the result that he may be continuously in debt to his bank for an indefinite time.

Aside from borrowing for development purposes, the producer may at times use his bank for the purpose of carrying oil in storage.

Hazardous nature of the business: While the bank should not, of course, finance 'wildcat' operations, still every well that is drilled is more or less of a 'wildcat' until the bit actually strikes the sand, for however proved the territory, no well is certain to be a producer until it is brought in. The writer not long ago walked over an extensive proved

oil field in the vicinity of Wichita Falls, Texas, and found that within a few hundred feet of a good producing well,¹ a driller had just brought in a dry hole, and within less than a hundred feet in another direction from the producing well, the driller brought in only a twenty-barrel well. Oil is found in pools or pockets, and these may be extremely spotted over a given territory. That is why so much uncertainty attaches to drilling operations even in a proved area. But most producers in a proved field will have what is called settled production (to be described in greater detail later on); that is, production from wells which have been producing for some time. If this production is really settled, the producer will have a basis of credit and something to absorb the losses which must result from the dry holes he will bring in as his operations progress.

Aside from the danger of getting dry holes, even in proved territory, there is the risk of the wells turning to salt water. This may happen in the best producing well overnight. The process of turning to salt water may be a gradual one, extending over many months, but when the water puts in an appearance, the value of the well as a basis of credit is seriously impaired if not destroyed.

But even in the event the producer has a good lease with profitable production, it is not unlikely that he will catch the speculative fever and immediately buy up other leases. He may easily lose on these leases, either by unfortunate drilling or unfortunate trading, all that he has made on a good lease. The affairs of the small producer are in most cases in a state of constant flux; consequently, the banker cannot rely too strongly upon a given statement for an accurate picture of the producer's financial condition if the statement is more than a few months old (and in many cases more than a few weeks old). The conservative bank will not wittingly lend the funds of its depositors to producers who use them for the purpose of speculating in leases.

Granting, however, that the producer is a conservative

¹ The well was making 400 barrels a day.

operator, and is using the bank's money to develop what gives promise of being a very rich lease, the banker may suddenly find him in a very serious situation financially. Let him bring in one or two paying wells, and soon the owners of leases surrounding him will begin to drill wells all around his lease. These wells are known as offsets. They are drilled near the edge of a lease, so that they may prevent the neighboring lease-owner's wells, situated just across the boundary line, from drawing out all the oil from the underlying sand. The law requires that the lease-owner drill an offset well to every producing well on a neighboring lease drilled within a certain number of feet of the boundary line between the leases. The object of the law is to protect the royalty owner, or the fee owner of the land. It will therefore be clear to the reader that, in spite of the one or two paying wells the producer may have brought in, he may on very short notice need a hundred thousand dollars to begin offset wells to those that have been brought in on surrounding leases. Such wells as he has will not have been producing long enough to provide him with the necessary capital. He will probably turn, therefore, to his bank. If the bank refuses credit, he will simply have to sell out. More than one producer has 'drilled himself into bankruptcy' in meeting the offset requirements of the law. And one of the hard things about the matter is that if a bank once begins to finance one of these producers, and if the producer suddenly finds himself in the throes of a drilling orgy, it must see him through in order to protect what it has already advanced him.

But let us suppose that the producer has survived all the hazards above pointed out, and has his lease drilled to the point where he can begin to retrieve the capital — both his own and the bank's — which he has risked in it; still he is confronted with the uncertainty as to the price that he will receive for his oil. He must sell it to some one of the larger companies through pipe-line companies which are controlled by them, and he has very little to say about the price which he will receive. Prices fluctuate very widely, and in many

cases constitute an important factor in the producer's ability to take care of his obligations.

Information necessary to proper extension of credit: First of all, the bank should know how much settled production the producer has. And at this point we should understand what is meant by settled production. When a well is first brought in, it may flow for some time under its own gas pressure and without the aid of a pump. This initial or flush production does not last long as a rule, and soon the well will be put on the pump. The falling-off in production is very rapid at first, but, after the well has been on the pump from three to twelve months, the flow becomes steadier and the yield from day to day does not show much change. There is, of course, a continuous decline in the amount of oil pumped, but it is very gradual. This regular flow, as distinguished from the flush production, is called 'settled,' and in proved fields the life of wells with such production can be estimated with sufficient accuracy to permit of their being used by the bank as a basis of credit. But the banker should know with regard to each producing well —

- (a) When it was brought in;
- (b) Its initial or flush production;
- (c) Its present rate of production;
- (d) How long the well has been producing at about its present rate;
- (e) The depth of the well to the sand and the depth of the sand,
- (f) Whether any water is being pumped and the amount, if any.

Then, by leases, the producer should show his total production for the three thirty-day periods preceding the date of the statement on an average daily basis. These figures will not only show to what extent the producer's total production is influenced by flush production from certain wells, but will be especially valuable as indicating the probable future liquidating ability of the producer; that is, the figures will give the banker some idea of what the producer will

have available over a given future period for the purpose of taking care of his obligations. Then, finally, the producer should furnish certain information in more or less detail concerning each one of his producing leases — such as his interest in the lease, the number of acres in the lease, the location, the number of producing wells, the average daily production of each lease in barrels, to whom the oil is run, the monthly cost of operating each producing lease, and the producer's valuation of his interest in the lease.

There is no good reason why the banker may not obtain all of the above information, inasmuch as the producer must have it available for income tax purposes. Moreover, it is information absolutely essential to a proper determination of the producer's settled production and his probable ability to pay his debts. The banker, of course, should not lend funds which, in a sense, have been entrusted to him, unless he knows with reasonable certainty that the borrower will be able to pay them back.

Having ascertained the extent of the settled production the banker will desire to know to what extent the producer will have to drill offset wells and the probable cost of such operations. We have already seen what offset drilling may mean to the producer if he does not have the capital to protect his leases by drilling the necessary offset wells. In short, before beginning the financial relationship with the producer, the banker should find out as nearly as possible about how far he will have to go; otherwise, he may soon find himself in the position of having to throw good money after bad.

In this connection information should be furnished by the producer as to what his ordinary drilling and development expense (exclusive of offset wells) is likely to be, in order that the banker may form some idea of when the producer will be in a position to begin paying off the advances made him. Of course, he will not be able to do this, in all probability, until after his lease is fairly well drilled in and on a settled production basis. It has been the usual experience of pro-

ducers that the first one or two wells obtained will not see them through to the complete development of the lease without the assistance of the banker. And the first wells certainly will not, if they are to be called upon to pay off the borrowings incurred by the producer in drilling them.

The banker, thus having satisfied himself concerning the producer's probable income and outgo, is ready to consider the actual assets and liabilities as shown by the producer's financial statement.

Since no considerable amount of oil is stored on the property — the oil being run almost immediately into the gathering lines of pipe-line companies who settle for it every fifteen days — no large amount of inventory and receivables should be shown on the statement. Aside from various assets, such as real estate, stocks and bonds, which are not directly connected with the producer's oil operations, the most important asset on his statement will be his producing leases, and it becomes at once of prime importance that the banker understand the basis on which they are valued, and whether that valuation is reasonable. The reasonableness of the valuation will depend very largely upon the amount of settled production.

The valuation of producing properties: Settled production is often dealt in by producers at so much per barrel of production. The market for leases on this basis is sometimes very active. During the visit of the writer to Wichita Falls in April, 1924, settled production was selling for about \$700 per barrel — which meant that if a producer had a lease with a settled production of 1000 barrels a day, he could sell it for \$700,000. This rather general and more or less arbitrary method of valuing leases is no doubt the result of the conscious or unconscious determination of the present value of the estimated future recoverable oil on the lease through the interplay of rumor, price, supply, demand, experience, and all of the other factors that ordinarily manifest themselves in a free and active market for any commodity. A producer may, therefore, show the leases in his statement at the cur-

rent price for his settled production. Another method, and one which is followed by many of the larger and better established independent producers, is to show the producing properties at cost, regardless of how much actual value may have been added to them through subsequent development. These producers, however, maintain complete records of the enhanced value of the properties due to the bringing in of new wells and the increased probable future production of those properties as determined in ways to be presently explained. They will maintain such records for income tax purposes.

Many producers, however, will by various means attempt to value the estimated recoverable oil in their leases and show such values on the statement. There is no particular objection to showing these values on the statement, but they are merely book values arrived at through a sort of appraisal, and until the oil is actually obtained (which is the only conclusive evidence that it exists), they represent nothing of a tangible nature. Therefore, if such values are placed among the assets, they should be clearly designated and the offsetting item on the liability side of the statement should be equally clearly designated as a part of the surplus or net worth.

Valuing the estimated future recoverable oil reserves: Largely as an inducement to the oil operator to continue his very uncertain prospecting for oil, the Government in its income tax law gave him the privilege of writing up or capitalizing within reason the future production of his properties in order that he might retain from each year's earnings a certain sum for depletion or return of capital before rendering his taxable income. Oil, like the products of mines and forests, is a wasting asset. The Commissioner of Internal Revenue has laid down certain rules which must be followed by companies desiring to value their leases for depletion purposes.

If the property was acquired before March 1, 1913, the fair market value must be determined as of that date. In

the case of oil or gas wells discovered by the taxpayer on or after March 1, 1913, and not acquired as the result of purchase of a proved tract or lease, where the fair market value is disproportionate to the cost, the fair market value must be determined as of the date of discovery or within thirty days thereafter. No rule or method of determining the fair market value of mineral property is prescribed, but the Commissioner will lend due weight and consideration to any or all factors and evidence having a bearing on the market value, such as —

- (a) Cost;
- (b) Actual sales and transfers of similar properties;
- (c) Market value of stock or shares;
- (d) Royalties and rentals;
- (e) Valuation for local or state taxation;
- (f) Litigation in which the value of the property was in question;
- (g) Disinterested appraisals by approved methods.

It is with (g) that we are particularly concerned now. If the producer has a proved lease and desires to write on the books the discovery or appraised value of the property, he might go about the matter as follows:

From the production records of each well, he can plot the production figures and project the curves thereby obtained into the future in accordance with the slope of the curves. The curves assume the shape of hyperbolas. In the Government's *Manual for the Oil and Gas Industry* it is stated that actual experience has shown that the estimated recoverable reserves of oil can be brought within surprising nearness to the actual figures by the use of production curves.¹ The producer can check up his estimates against the experience of neighboring producers who are working under the same general conditions. Having obtained in this manner an estimate of his reserves of oil and the probable life of his wells, his problem now becomes one of determining how much of each year's income he may set aside as representing

¹ See the *Manual* published in 1918, *passim*.

the depletion of those reserves. This can best be understood by taking a concrete example.

Suppose Jones has determined through the use of production curves, or otherwise, that his tract probably contains 2,000,000 barrels of oil recoverable at a profit and that the average life of his wells will be ten years. Assuming that the price of oil of the quality produced by him was \$1.25 per barrel as of the date of proving his property, he would obtain \$2,500,000 as the total value of his oil reserves. Inasmuch as the bulk of his value lies in the future, it is necessary to reduce it to a present value basis to get an amortizable figure. Appraisal engineers obtain the present value by discounting the gross value of each year's estimated production at from 8 to 10 per cent, compounding the discount. We shall assume that Jones, in applying this principle to the estimated production of his tract for each year of its probable life, finds the present value to be \$1,000,000. It is on this capital sum that he would be allowed depletion charges; it is his returnable capital.

Dividing the \$1,000,000 capital sum by the 2,000,000 estimated reserves, Jones would obtain 50 cents as his unit cost per barrel or amount per barrel of oil sold which he could deduct from gross revenues before rendering his taxable income. And of course before arriving at net taxable income, all expenses, including depreciation, would be deducted also.

From time to time, it might be necessary, owing to new discoveries, to revalue properties. The law provides for that contingency. It is clear from what has been said that it will be to the interest of each producer to place his estimate of recoverable reserves (and their value) at as high a figure as the Commissioner of Internal Revenue will permit to pass: for the higher the returnable capital, the longer the producer will be able to deduct the unit cost from each year's production.

Undeveloped and semi-developed properties: Most producers have extensive acreage which has not yet been pro-

spected or, at least, not developed. Such acreage is not properly a basis of credit, since its value is wholly speculative.

Certificate as to basis of valuation of properties: The banker should insist that the producer submit together with his financial statement a certificate from some disinterested and competent party as to what the properties are worth and his reasons for believing them to be worth the values placed upon them. The producer should also furnish detailed information as to the basis of his own valuations.

The bank and the producer: Since the bank has no authority to speculate with its depositors' funds, it should, under ordinary circumstances, have nothing to do with the 'wild-catter.' There may be instances, however, when a man may be worthy of a loan by virtue of his worth and character, even though he intends to use the proceeds for the development of untried territory; but in such cases it is the man's worth and character and not the nature of his operations which form the basis of the advance.

If the producer is a man of means, with a substantial amount of assets exclusive of oil properties, he may be entitled to an unsecured advance commensurate with his ability to liquidate it within, say, ninety days out of the proceeds of the sale of the settled production of his wells. Of course, the loan may be subject to repeated renewals, because the operations of the producer will probably be of a continuous nature; but the point is that the loan should be granted for ninety-day periods so that the banker may check up periodically on the ability of the producer to liquidate the debt out of his production. In this manner, the bank can go far to prevent the borrower from becoming over-extended and ensure the reasonable liquidity of the loan.

But the safest plan, and the one followed in many cases by the more conservative bankers in oil districts, is that of taking an assignment of the producer's lease and oil runs. In this manner, the banker controls the means of liquidating the debt due him. In addition to the assignment of the lease

and oil runs, the banker may demand a mortgage upon such property as the rigs, tools, and machinery.

Analysis of statements: (See Appendix V, pages 287-353.)

2. THE REFINER

Selling terms: The principal products derived from the refining of crude petroleum are gasoline, kerosene, greases, lubricating oils, and fuel oil. Gasoline is the most important product. The refiner usually sells it on a sight-draft basis. The other products, however, may be sold on time. The customary terms are from 1 to 2 per cent discount for payment within 10 days, with net terms of from 30 to 90 days. Thus the gasoline turnover into cash is very rapid; whereas a considerable volume of receivables may be accumulated as a result of the other operations of the refinery. As stated in our discussion of the oil producer, the refiner must usually pay for his crude every fifteen days.

The financial statement: As a rule, considerable inventories of crude and finished products will be shown. In order to check up on valuations, the banker should know the quantities of the several commodities making up the inventories. In times of price depression, the refiner may manufacture for stock. Rather than shut down his plant, he will continue to run and accumulate the manufactured products in storage. Ordinarily this cannot be done for a considerable length of time without calling upon the banker for financial assistance. Manufacturing for storage may be a very dangerous thing; in effect, it is speculation, and the banker financing a refinery in operations of this kind should look well to all the surrounding circumstances. As above intimated, the statement may show a considerable amount of receivables representing the sale of oils and greases. Ordinarily the receivables would not equal the inventory, because gasoline sales are principally for cash, and gasoline may make up a large part of the inventory as well as sales. It is stated that receivables will average about forty-five days' sales. Trade acceptances will be found in use to some extent.

The typically good refinery would show on its statement borrowed money in an amount about sufficient to offset receivables and cash. The owners of the plant should, under ordinary circumstances, provide the capital required to build it and enough to provide for normal inventories. Of course, many first-class risks will not always render a statement meeting this standard.

Unfavorable aspects of the independent refiner's operations: The banker should know whether the refiner is situated advantageously with respect to supplies of crude oil. Communication with fields through pipe-line connections is to be desired, because pipe-line transportation is much cheaper than any other kind. Many local refineries have been ruined because local supplies of crude, upon which they were mainly dependent, were exhausted and because it was unprofitable to import crude from fields remotely situated.

Then there is the element of competition. A few large companies practically dominate the oil industry. These companies are vertically organized. They control vast and rich sources of crude oil supplies in their ownership of leases and wells; they own large and very efficiently operated refineries; and, finally, they operate elaborate and far-reaching distributing and marketing organizations which give them the choice domestic and foreign markets and enable them to find outlets for their products when the small refiner has no demand at all. Thus the large companies can function more cheaply, generally speaking, than the small independent, because they have a steadier and cheaper supply of raw materials, larger and better refineries, and first choice of the markets. It is not hard to understand, then, that a refinery with small capital may have an exceedingly difficult road to travel in the face of such powerful competition. In fact, the mortality among independent refiners has been high.

There is another element of uncertainty in the refiner's situation. He, of course, has no control over the price he must pay for crude oil. He likewise has no control over the

price he will receive for his manufactured products. The prices of both crude oil and refined products are determined in a broad competitive market wholly unaffected by the desires or plans of the small independent refiner.

Analysis of statements: (See Appendix V, pages 287-353.)

PART FOUR
EXTENDING CREDIT TO THE COUNTRY BANK

CHAPTER X

EXTENDING CREDIT TO THE COUNTRY BANK

IN this chapter we shall define a country bank for our purposes and discuss the various items of importance on the bank's financial statement, dwelling, in the course of the discussion, upon certain policies and practices which the country banker should follow to keep his bank sound and make it a desirable credit risk; then we shall take up for consideration the importance of the bank's having a conservative management and active and responsible directors. Finally, we shall discuss the country bank in relation to its community and devote particular attention to the banks in the western part of the state, where economic changes of great importance are taking place.

Definition of a country bank: A country bank is usually, though not necessarily, one of small size, located in one of the towns or villages of the state; but for our purposes a country bank is one the business of which is principally conducted with farmers or live-stock men, regardless of the size of the bank or the size of the town in which it happens to be located. Practically all of the banks coming within this class will be located outside the larger cities, such as Dallas, Houston, Fort Worth, or San Antonio.

A. THE PRINCIPAL ITEMS IN THE COUNTRY BANK'S STATEMENT

Importance of the statement: The statement or balance sheet is as necessary to the intelligent extension of credit to a country bank as it is in extending credit to any other type of borrower. The statement shows the condition of the bank as of a certain date, and one skilled in reading it may with reasonable facility determine whether the bank is probably worthy of credit. The lending bank should require with each

application for credit from the country bank a complete statement of its condition. If the books are properly kept, the bank should be able to take off a statement at the close of business each day; therefore the request would impose no hardship. Moreover, a current statement is almost indispensable to the creditor, because during the borrowing season in this country the condition of a bank catering to the agricultural or live-stock industries may undergo marked changes within a very short time. A statement two weeks old may be misleading as an indicator of the bank's present condition. This rapid change in condition is due to the extremely seasonal character of the bank's business. Unexpected and unnecessary rains during the critical stage of the crop-planting period, for example, may necessitate replanting and cause a marked and immediate increase in the demand upon the country bank for credit and an increase in the withdrawal of its deposits — both giving rise to an almost emergency call for funds from correspondent banks.

I. ASSETS

LOANS — *Definition; source of funds loaned:* The largest and most important item among the assets on a bank's statement is its loans and discounts or receivables. The loans are represented by the notes of borrowers given to the bank in return for cash or for a credit on the books subject to check. It is mainly from the interest and discount charged on the loans that the bank derives the profits which are the main reason for its existence. The funds which the bank lends to its customers usually come from one, several or all of the following sources:

(a) *Deposits:* This is the principal source and appears on the liability side of the statement as the most important item and as an offset to loans. A bank, which is not subject to severe seasonal fluctuations in demand for credit and in the withdrawal of deposits, should normally keep its loans well below its deposits. In this manner, it will avoid having to call upon creditors and the consequent payment of in-

terest, and it will be able to maintain a satisfactory cash position at all times. It may even be able to maintain a secondary reserve composed of government bonds or other highly marketable and safe securities purchased as an investment, which would be available for turning into cash to meet any emergency. Many of the country banks in this state, however, must meet such heavy demands for credit and such heavy withdrawals of deposits at certain seasons of the year that they are not able at all times to maintain the desired relationship between loans and deposits. The result is that, unless a substantial part of the bank's capital investment has found its way into the cash or other very liquid resources and can be made available for seasonal needs, the bank will have to borrow. In short, it may be said that deposits are the real, permanent source of loanable funds.

(b) *Public funds*: We shall discuss public funds later on at considerable length. They are of the nature of a deposit and are generally so grouped and treated, and yet in many respects they are the equivalent of borrowed money. Many banks derive a considerable part of the funds which they lend from the deposit of public money by state, county, and municipal authorities.

(c) *Borrowings*: As indicated above, the country bank at certain seasons of the year, when demand for credit is extraordinary and the withdrawal of deposits is very heavy, may not be able to handle the situation out of its own resources. At such times it will resort to its correspondents and obtain a line of credit, the proceeds of which will go to meet the decline in deposits and to make advances to customers.

(d) *Capital investment*: This includes the capital stock, surplus, and profits. If the funds from these three items are not entirely required to carry the bank's permanent investment in banking house, furniture and fixtures, and other permanent assets, a part of them may be available for loaning purposes. Later on, if the bank develops substantial

losses in its loans, or if it has to close a number of them out by taking possession of the security back of them (such as real estate, live stock, stocks, etc.), it may happen that a large part, if not all, of the capital investment will be absorbed by such losses or such non-liquid assets. Certainly the assets which are known to be of a fixed and permanent character should not be allowed to exceed the capital investment for the reason that the assets offsetting the deposits and borrowed money should be very liquid, just as the deposits and borrowed money are very liquid and quick liabilities.

LOANS — *Classification according to source of funds:* The type of loan to be made will depend upon whether the funds loaned have been obtained from local sources (local depositors) or from outside sources.

(a) *Local loans:* The most important country bank loans are necessarily local loans — loans made to borrowers who live and carry on their business within the bank's immediate trade territory. Since the bank depends upon this territory for the bulk of the deposits which constitute its loanable resources, and since the depositors themselves depend upon the welfare of that territory for obtaining an income to deposit, the bank must support its community by financing in a reasonable degree the meritorious and necessary enterprises of the community. But it is in the bank's local loans that the greatest hazard may exist. The bank runs the risk of large carry-overs in its loans if crops fail or are unduly short — a condition which may easily be caused by any one of a number of events over which little or no control can be exercised. The live-stock bank also caters to a business which is hazardous. The live-stock man has to contend with various stock diseases and the vagaries of the weather; and both the farmer and the live-stock man are confronted with uncertain prices for their products. Their situation may be summed up by saying that there are many vital factors in the cost of producing their products over which they can exercise no control whatever; they can control only

in a general way the quantity of what they produce; they have little to say — practically nothing to say, individually — about what their products shall bring in the market. In addition to all of these risks surrounding the local loans of the bank, there must be borne in mind the fact that the loans have a fairly long average maturity, and in the event a borrower is unable to pay during the normal liquidating season, his loan becomes fixed for an additional twelve months with the hazard attached to it increased.

Therefore, it will be seen that the bank, to operate conservatively, should not invest in its local loans — except, possibly, in those about which there can be no question of the borrowers' ability to pay at maturity — funds which have come from sources other than its own community; that is, from sources other than its local depositors. Of course, if the deposits are not adequate to supply the necessary loanable resources, the bank will have to borrow from other banks, and it may legitimately lend the proceeds of its borrowings locally, taking care, however, that the loans so made are strictly seasonal, good, necessary, and bear every reasonable indication that they can and will be met at maturity. The creditor banker thus casts his lot with the local depositor; and as long as the economic organization of the farming industry in Texas remains as at present, it will be his duty to assist the country bank in its necessary function of taking care of its share of the reasonable financial requirements of its community. When crops are bad or conditions in the live-stock industry are depressed, the creditor bank will simply have to 'go along' with the country bank into better times. But the sort of funds which should be invested very cautiously in local loans, if at all, are those derived from public deposits and from other outside or extra-community deposits — particularly if they are large and make up, in the aggregate, a high percentage of the total deposits. These funds do not as a rule belong permanently in the bank's trade territory, will not remain there permanently, and may be subject to withdrawal at any time.

Moreover, the sources from which they are derived may have no particular interest either in the community or in the bank (such as the creditor banker and depositors have), and finally whoever controls such deposits may not be able to assist the bank, even if he or they were willing, by refraining from withdrawing them when the bank needs them most. Therefore, the bank may run considerable risk in lending such deposits locally for what may be, and often is, an indefinite time. §

(b) *Purchased paper*: The second class of loans may be grouped under the general heading of purchased paper. Since the country bank is not to lend the outside deposits to local interests except with great caution, it must seek some other outlet for the funds that will yield a reasonable return upon them and make it profitable to handle them. The country bank will often find that if it handles outside deposits in the way they should be handled, little money can be made out of them, because the bank will usually be paying too high a rate of interest on them — this being particularly true of public deposits. The safest investments for such deposits are those which are most liquid and readily marketable or about which there can be no doubt of payment at maturity. Commercial paper or bankers' acceptances bought in the open market, call loans, and government obligations fulfill these requirements and make up an acceptable secondary reserve for country banks.

Flush deposits, or deposits which, though coming from local depositors, are likely to be only temporarily retained, should be invested in much the same way as outside deposits. In every farming community, where reliance is placed upon a single money crop, deposits will be very heavy in the late fall and winter, if a good crop is made, but they will likely disappear, in large measure, the following spring and summer on account of withdrawals for crop purposes. The bank should keep itself in condition to take care of the decline in its flush deposits out of its own resources. Such deposits are especially common in the case of many banks in

the western part of the state, as we shall learn when we consider the special problems of the western bank.

Many country bankers, in their desire to keep all their funds invested, make the mistake of basing their local loans on their maximum total deposits instead of on their average individual deposits. The result is that, when the heavy seasonal withdrawal of deposits and the seasonal demand for additional credit make themselves felt, the bank has to borrow very heavily from its correspondents. The conservative plan for the country banker is that of basing his average local loans on his average individual deposits, thereby making it necessary to borrow from creditors, if at all, only for relatively short periods and only for the purpose of caring for the peak increase in loans during the borrowing season and the seasonal decline of deposits below the average occurring at the same time. The banker should always bear in mind the maxim that his bank should be a lending institution rather than a borrowing institution, but if it does not lend wisely and always with an eye to its deposits, the principal source of loanable funds, it may have to borrow very heavily.

LOANS — *Seasonal fluctuations:* The cotton bank may experience an increase in loans as early as February or March, or even earlier in the southern part of the state, to finance the farmer in breaking the land and preparing for planting. From then until July (in southern Texas) and possibly August, the loans to farmers may increase ¹ to care for cultivating the crop, purchasing feed, and defraying living expenses. Then, as cotton begins to move to market, collections should reduce the loans, slowly at first, but afterward fairly rapidly, until in December or January they should be at their low point.

The wheat bank has seasons somewhat similar to those of the cotton bank, except that the loans may begin to go up several months earlier, inasmuch as wheat is usually planted in the fall. Liquidation will also be earlier, threshing and marketing taking place principally in June and July.

¹ But the increase should be very small and gradual after May.

Banks in the sheep and goat country will ordinarily experience an increased demand for credit from December to March or April when the spring clip of wool and mohair begins, but in May and June, when the clip is moving to market, loans should be materially reduced. Then loans may again show a rising tendency from July to September and October, when the fall clip of wool and mohair and the marketing of lambs should result in further liquidation. In other words, banks mainly dependent upon the wool and mohair industry normally have two liquidating seasons each year, of which the spring season is the more important.

Banks dependent upon the cattle industry may not have so well-defined liquidating and borrowing seasons as the agricultural or wool and mohair banks, for the reason that many of their loans, when renewals are considered, may run for comparatively long periods — sometimes for as long as two or three years. In general, however, it may be said that there is one principal marketing season for each cattle-raising part of the state. It will be the spring for the southernmost sections of the cattle country, where fair pasturage is to be had throughout the mild winters. It will be later as one comes farther north, where the winter season is longer and more severe and the spring pasturage, which is mainly depended upon for fattening the stock for market, is not so soon available. And in the panhandle section of the state, the marketing season may not arrive until well into the fall of the year. If calves are not carried over to the yearling stage, but are marketed as vealers, they will be sold in the fall following the spring when they were dropped. The bank's loans will usually be heavier during the winter, when the live-stock man may have to buy feed for his stock, and during the grazing season just prior to the movement to market, than at other times — particularly if the bank confines practically all of its lending operations to cattle men.

When the normal liquidating season in its territory arrives, the bank should insist that every loan which it has made for financing its farmer or live-stock customers up to

that season be liquidated, if possible. There is only one proof that a loan is collectible and that is to collect it. Collecting the loan is evidence that the borrower has his affairs well in hand and is solvent. It is for this reason, as we shall discover later on, that the lending bank should watch particularly the amount of liquidation obtained by the country bank out of its note case, and should emphasize to the country bank the desirability of liquidating its borrowings out of the collection of the seasonal loans it has made. By liquidating its borrowings in this manner, it will give the best proof that the funds it has borrowed have been invested in essentially liquid and seasonal loans, as they properly should have been.

LOANS — *The note case is the heart of the bank:* A bank is organized primarily to make profits for its shareholders, and practically all the profits are derived from interest and discount charged on loans. Since the item of loans is the largest and most significant among the bank's assets, it is easily understood that the note case is the most vulnerable spot in the bank's constitution and the most susceptible to those ills which are usually responsible for the bank's misfortunes — mismanagement and economic maladjustments. Incompetent management is almost always signally manifested in the unwise granting of credit and the taking into the note case of loans which subsequently result in losses. Economic maladjustments are also certain to be reflected in the note case. Successive crop failures, for example, or depression in cattle prices, soon deprive a large part of a bank's loans of their liquidity and may render many of them extremely doubtful of collection and eventually outright losses.

Therefore, unless the lending bank knows something about the condition of the borrowing bank's note case, it is really in no position to pass upon the application for credit. The usual published statements will tell very little about the condition of the loans. The classification of the loans made by the last examiner to visit the bank should be called for. Few bankers call for this classification, however, although the fact remains that without it the loan officer cannot even

approximate the true condition of the bank. In proof the writer would offer the following actual case which involves a large country bank: On the basis of a certain published statement, there was nothing particularly alarming about the bank's condition. It is true that it was undercapitalized to some extent, but probably no more so than many banks in excellent condition. As far as the ratio of loans to deposits was concerned and from the general appearance of the other assets and liabilities, the bank might have been considered to be at least fairly sound. But all this on the assumption that the loans were good and collectible — a rather unwarranted assumption in the face of the examiner's classification, which was called for and which showed estimated losses of more than \$400,000, as compared with a combined capital stock, surplus, and profits of only \$254,000. The bank was actually insolvent, a condition which was brought about through a combination of mismanagement and depression in the cattle industry. The published statement as of June 30, 1923, appears below and, as stated, reveals nothing of an especially alarming nature.

THE 'A' BANK OF 'A,' TEXAS — CONDITION AS OF JUNE 30, 1923

Loans and discounts..	\$1,797,000	Capital stock.....	\$100,000
Government bonds...	250,000	Surplus.....	125,000
Other stocks and bonds	130,000	Profits.....	29,000
Banking quarters....	42,000	Deposits.....	2,765,000
Other real estate....	15,000	Borrowings.....	0
Cash and exchange...	785,000		
Assets.....	\$3,019,000	Liabilities.....	\$3,019,000

LOANS — *Concentration of credit:* The country banker should at all times remember that in making loans the danger of substantial losses is greatly minimized by distributing the credit risk as widely as possible. He already has one very great risk which results from the fact that he caters to practically only one class of borrowers, all of whom are engaged in one line of business (cotton farming, live-stock raising, etc.). Thus, he has no distribution of business risk,

which is a strong reason why the individual risk should be as widely distributed as possible. That is to say, other things being equal, the country bank with the smallest average loan will have a better collection record and suffer a smaller amount of losses than any other bank. This necessarily follows from the fact that the small loan is much more likely to represent a current seasonal transaction (especially in the case of the agricultural bank) and therefore to be more liquid than the large loan. The capital loans which burden the note cases of so many banks are usually the larger lines, and it is in the attempt to collect them that the banks meet their greatest difficulties. Capital loans should be held to the strictest minimum possible. Often a line of credit will be utilized in the first instance for current seasonal operations, but, through crop failures, low prices, and other unfortunate circumstances, may not be paid in full during the liquidating season. In other words, part of the line represents a loss in the borrower's operations and must be carried over by the bank into the next year. If a new line of credit is granted the following year and the year after that, both with equally unfortunate results,¹ the bank will soon have outstanding a substantial line in favor of the borrower which represents nothing but accumulated losses. The line has become a capital line, although not originally advanced for a capital purpose.

It is well to remember that with each accumulation of losses the borrower's line becomes more difficult of liquidation, and may easily reach such proportions as to be practically impossible of liquidation from future crops after those crops have provided the means of retiring the debts incurred in their own production.

The country bank can protect itself from the dangers of one type of capital loan — the loan made for a capital purpose in the first instance — by simply making as few of them as possible; and it can protect itself, in considerable degree,

¹ Such occurrences through successive crop failures and unprofitable prices have not been uncommon in this state.

at least, from the type of capital loan just discussed by restricting its current agricultural or live-stock loans to conservative amounts based upon what the borrower will produce in an average year and sell at an average price. In this manner the good years will offset the bad. Moreover, it will do the borrower no harm to have to rely as much as possible upon his own resources.

In the matter of undue concentration of credit, the country bank often violates good banking policy by permitting its own officers and directors to carry large lines with it permanently. In fact, some banks would seem to have been organized primarily for the purpose of providing credit for officers, directors, and their affiliated interests. If, as a result of unsound practice, the country bank desires to build its line of credit with the city correspondent up to an unreasonable amount, or if the bank, through too liberal extensions of credit or lassitude in collections, is unable to liquidate the account with the correspondent as anticipated, the correspondent may well inquire, before proceeding much further with the bank, to what extent it is carrying lines for its own officers and directors. If those lines are heavy, it may justifiably demand as a condition precedent to its going along with the bank that they be liquidated, or at least materially reduced. The funds obtained from such liquidation would enable the bank to be less dependent upon creditors. A bank in an extended condition is in a much stronger position to ask indulgence on the part of its creditors if it is not carrying heavy lines for its officers and directors.

LOANS — *Tenant loans:* A great many tenant farmers, as we have seen, have no basis of credit other than the fact that they may have good past records in the payment of their debts and are generally regarded as being of good character. A country bank lending to such a tenant farmer, however, on an unsecured basis is obviously betting on his making a crop. If he does not make a crop, the bank must simply carry the line over and probably throw good money after what would

otherwise be bad, by financing him for the next year. In other words, when the tenant has built up a substantial line, the bank may conclude that it cannot refuse to continue on with him, because it has no security and the tenant probably has little of value that could be attached. Moreover, since he probably owns no real estate, he is not 'anchored' to the community and thus may easily pack up and move on to more congenial surroundings, leaving the bank with nothing but a loss for its pains. As a general rule, in making loans to tenant farmers the country bank should obtain a chattel mortgage on their teams, tools, and crop, or else should insist that the landlords sign the notes with them. The proportion of tenant loans to total loans is very high in some country banks.

Bills of exchange: This item will be encountered most frequently in the statement of a cotton bank during the fall and winter seasons. The bills are created in connection with the buying of cotton from farmers on the streets of the town in which the bank is located. We have already discussed the nature of the bill of exchange and its function in financing the marketing of cotton.¹

Warrants: The bank may acquire warrants by purchase or by discount for customers. They represent the promise to pay of the state, county, or municipality out of funds not yet available. A class of warrants commonly met with in the financial statement of a bank is the teacher's salary warrant. The warrant is similar to the ordinary loan or discount and is sometimes grouped with them, although more commonly it is shown as an investment and grouped with securities owned.

Stocks and bonds: Unless this item is made up of government bonds purchased to secure circulation or for an investment, it may merely represent miscellaneous and nondescript stocks and bonds taken over in closing out loans which could not be paid or fully paid by certain borrowers. Such securities are ordinarily of uncertain value and are a slow asset. The bank should have as little of its funds invested

¹ See *supra*, page 77 *et seq.*

in them as possible. Of course, in many cases, Texas country banks carry substantial amounts of municipal securities and other prime investments. But all too frequently this item is composed entirely of miscellaneous securities of doubtful standing and value. If the item is large, an analysis should be requested.

Banking house, furniture and fixtures: These are, of course, slow assets, and the bank should not have any more of its funds than necessary held inactive in them. This applies particularly to a country bank, where pretentious building and fixtures are not called for by its class of business. But many banks, perhaps unduly swayed by pride, are led to make uncalled-for and unwise investments in buildings and equipment. The following case, although not that of a country bank, is a fine illustration of the point:

STATEMENT OF THE 'B' BANK OF 'B,' TEXAS, AS OF
DECEMBER 31, 1923 ¹

Loans and discounts. \$2,774,000	Capital stock.	\$600,000
Overdrafts 6,000	Surplus.	300,000
United States bonds. 130,000	Profits.	32,000
Other securities. . . . 187,000	Circulation	104,000
Bank building furniture and fixtures. . . 1,145,000	Bank deposits.	223,000
Other real estate. . . . 86,000	Demand deposits. . .	1,989,000
Cash and exchange. . . 492,000	Time deposits	1,372,000
	Bills payable.	200,000
Assets. \$4,820,000	Liabilities.	\$4,820,000

The above statement shows that the investment in building, furniture and fixtures exceeds the combined capital and surplus and profits by more than \$200,000. In effect, therefore, over \$200,000 of the funds which the depositors and creditors have placed in the bank have been invested in those slow assets. Few conservative bankers would contend that such a disposition of deposits or borrowed money was legitimate, even assuming that the building, being an office building, was bringing in good revenue (which is not true in

¹ For convenience, all figures in bank statements used in this chapter will be shown in round amounts.

this case). Moreover, because of the fact that the bank has so heavy an investment in building, furniture and fixtures, it is forced to borrow money earlier than usual and at times when otherwise it would probably not have to borrow at all. The general thought to be kept in mind is one that has been previously suggested in this study: the bank should have at all times in the form of earning assets as large a proportion of its total assets as possible and it should have all of its earning assets as liquid as it is practicable to keep them.

Other real estate: This is almost always real estate which the bank has taken over in closing out loans which were left wholly or partially unpaid by the borrowers. The real estate was held by the bank as security to the loans. It is an asset of uncertain value and at best a very slow one. Since a bank's deposits, whether demand or time, are preëminently liquid, it is clear that the bank should have as little as possible of the funds derived from those deposits 'frozen up' in such assets as real estate. National banks are prohibited from carrying real estate for a longer period than five years.

Cash and exchange: This item usually includes actual cash on hand, cash reserves with the Federal Reserve Bank or correspondents, balances due from correspondents, and such items as checks and drafts drawn on other banks. There are noteworthy seasonal fluctuations in the cash and exchange of a Texas country bank. In the fall and winter, after crops have been marketed, the item may be very large, but as spring and summer arrive, with their heavy outlays for crop production, the item may decline to the point where it will not be much in excess of the minimum reserves required by law. During the spring and summer, the loans of the bank will be increasing and the deposits will be decreasing. An increase in loans must be offset either by a decrease in some other asset or by an increase in some item among the liabilities or net worth. In the ordinary transaction, an increase in loans does not result immediately in a direct decrease in cash, but in an increase in deposits, representing credits to the borrowers' accounts. As the borrowers need

the funds to their credit, they draw checks on the bank which are charged to their accounts, thus reducing the bank's deposits, the reduction in deposits being offset by a corresponding reduction in cash. Thus, if there were no fluctuation in the deposits of the non-borrowing customers of a country bank, the drain upon cash could be accounted for wholly by the increase in its loans, but in this state, during the crop-growing and crop-harvesting period, the deposits of the non-borrowing customers decline at the same time the loans are increasing. And this decline must be met out of the bank's cash. Thus the bank is confronted with heavy demands for cash from two different sources at the same time. The concentration of the demand upon it for funds in this manner often exhausts all of its liquid and easily convertible assets and necessitates borrowing from the Federal Reserve Bank or from correspondents in order to maintain the minimum cash reserves required by law. In fact, it may be said that in almost every case where a bank has to borrow, the action is taken for the purpose of restoring cash to its reserves in order to build them up to, or prevent them from falling below, legal requirements — the reserves having been depleted as a result of the heavy demand for cash occasioned by the seasonal increase in loans and decline in deposits. When a bank's reserves are deficient, it is prohibited by law from making further loans. When the borrowing season of the country bank is taken up, this topic will be discussed more fully, even at the risk of repetition, for it is necessary that it be understood clearly.

When a country bank is carrying large cash balances with correspondents during the fall and winter, it may be worth while to know with what banks the balances are maintained. The writer once knew of a case where a country bank had several hundred thousand dollars (the bulk of its cash) on deposit with a correspondent whose condition was precarious. If the correspondent had failed, the country bank would have been forced to close.

2. LIABILITIES

DEPOSITS — *Demand and time*: The usual classification of deposits on a bank's published statement divides them into demand and time deposits. Demand deposits are ordinarily defined as those which are payable in thirty days' time or less. Time deposits are those which may not be withdrawn until after thirty days. In practice, however, all deposits are generally subject to withdrawal at the pleasure of the depositor. Ordinary savings deposits, which the depositor may not withdraw until after giving thirty days' notice (if the bank should insist upon notice, which it would never do), are typical time deposits. From the standpoint of the lending bank, there is another classification of deposits, which is probably of more importance, namely, the classification into bank deposits, individual deposits, and public funds (or public deposits).

DEPOSITS — *Bank deposits*: Inasmuch as the typical small country bank would seldom be the recipient of *bona fide* deposits from other banks, the item of bank deposits may, particularly during the borrowing season, represent overdrafts with correspondents and thus in effect be the equivalent of borrowed money. If they amount to a considerable sum, their true nature should be ascertained.

DEPOSITS — *Individual deposits*: It is the bank's individual deposits which should be its mainstay. Those deposits represent the local money of the community left with the bank and may legitimately serve as the reservoir of funds for investment in local loans. As previously pointed out, the loan policy of the bank should be directed toward the end that its average outstanding local loans should not exceed its average individual deposits. Obviously the more stable the individual deposits are, the more safely may they be invested in local loans. If deposits fluctuate widely between seasons, the cotton bank, for example, should, during the fall and winter when they are heavy, keep a relatively large proportion of them in cash and/or commercial paper, bankers' acceptances, government securities, or similar liquid

paper which may be turned into cash within a short time. If the flush deposits are invested in local loans they cannot be collected for a number of months, or until the crop is harvested and sold, and liquidation would depend upon the hazard of raising a successful crop. The country bank in this state cannot arrange the maturity of its local loans so as to assure itself of liquidation and funds when needed to take care of the withdrawal of the flush deposits.

There is more or less fluctuation in the deposits of every country bank in this state. During that season when crops are being grown or cattle are being fed or ranged, deposits are withdrawn to meet the expenses incident thereto. Loans, at the same time, are usually on the increase for the same reason. In the fall of the year in the case of agricultural banks, in both the spring and the fall in the case of banks in the sheep and goat country, and during the cattle marketing seasons in the case of cattle banks, deposits should normally show a material increase and loans should be reduced from collections.

Many country banks, owing to severe competitive conditions in their communities, pay interest on a large proportion of their individual deposits. Sometimes the rate paid is so high that earnings are materially affected. The practice of paying interest on deposits should be discouraged. It tends to make a bank's credit policies less conservative in its attempt to find remunerative investments. In some cases the ordinary relationship of the depositor is destroyed and he becomes a creditor in much the same sense as any other lender of money to the bank.

The individual deposits should be reasonably proportionate to the average outstanding loans, owing to the close relationship between them. They should also be neither too low nor too high in relation to the bank's capital investment. Average deposits should amount to between four and eight times the capital investment. If they are less than four times the investment, they may not be sufficiently high to enable the bank to earn a satisfactory return for the stock-

holders; if they are greater than eight times the investment, the bank may be spreading out too much in proportion to what the owners have at risk in the enterprise: the bank becomes undercapitalized. A comparatively small percentage of losses among the loans may seriously impair the capital, if not entirely wipe it out and thus render the institution insolvent. The higher the proportion of capital investment to deposits, the greater the margin of safety for the depositors. Below will be found two statements of banks, one showing a condition of overcapitalization (or, really, dry rot), and the other a condition of undercapitalization.

THE 'C' BANK OF 'C,' TEXAS — CONDITION AS OF JUNE 30, 1923

Loans and discounts....	\$58,000	Capital stock	\$25,000
Securities.....	5,000	Surplus.....	2,000
Banking house, furniture and fixtures.....	3,000	Demand deposits.....	11,000
Cash and exchange	3,000	Time deposits.....	8,000
Deficit	2,000	Borrowed money.....	25,000
Assets.....	<u>\$71,000</u>	Liabilities	<u>\$71,000</u>

There is really no reason for the existence of the above bank. Deposits are actually less than the capital stock. It can make no money. In fact, a deficit is shown among the assets equal to the surplus. While this bank is overcapitalized on the basis of the deposits it actually has, still the capital could not very well be lower and justify the existence of the bank. The bank should liquidate.

THE 'A' BANK OF 'A,' TEXAS — CONDITION AS OF JUNE 30, 1923

Loans and discounts..	\$1,797,000	Capital stock.....	\$100,000
Government bonds..	250,000	Surplus.....	125,000
Other stocks and bonds.....	130,000	Profits.....	29,000
Banking quarters...	42,000	Deposits.....	2,765,000
Other real estate....	15,000	Borrowings.....	0
Cash and exchange..	785,000		
Assets	<u>\$3,019,000</u>	Liabilities.....	<u>\$3,019,000</u>

This bank with deposits approaching the three-million-

dollar mark has a capital investment of about \$250,000. Deposits are nearly twelve times the capital investment. The bank owes nothing. If its loans are all good, it should earn a very satisfactory return on the investment. If the reader will turn back to page 246, he will find that the foregoing statement is the same as the one there referred to in connection with losses in the note case amounting to nearly twice the capital investment of the bank. If a capital investment of about \$500,000 had been maintained, or twice the sum actually invested by the owners in the bank, the condition of insolvency could have been avoided by the paying-in of a substantial assessment. This case shows clearly the danger of running a large bank on a small capital investment.

It is always important for the lending bank to know whether any of the individual deposits of the borrowing bank are exceptionally large; that is, so large that their withdrawal might embarrass the bank. If the country bank has invested its large deposits in local loans which will not be collected for some months, instead of maintaining a strong cash or secondary reserve against them, it may find itself forced to seek aid of creditors if deposits are suddenly withdrawn. If creditors should refuse assistance, a serious situation would arise. Moreover, the creditor would desire to know of the existence of these large individual deposits and the probability of withdrawal before making a commitment to extend credit to the country bank, in order that he might realize into just what situation his relation with the bank might eventually lead him. Should the deposits be withdrawn, it might easily happen that he would have to furnish the funds to care for the withdrawal in order to protect the advances he had already made.

DEPOSITS — *Public funds*: The state banking laws of Texas define public funds as 'funds belonging to the state of Texas, to any county or political subdivision of the state, municipal corporation, road districts, school districts, drainage districts, levee districts, or bonded districts of any kind.'

A deposit of public funds differs from the ordinary local deposit of a bank principally in that the source, or, if not the source, at least the ultimate destination, of the former is mainly outside the immediate trade territory of the bank. Such a deposit is not likely to remain more or less permanently in the territory, but rather, when withdrawn, to disappear altogether. On the other hand, the local deposit comes from within the bank's own territory, is, for the most part, spent there, and forms a more or less permanent part of the working capital of the community. Therefore, the local deposit can be subjected to the hazards of investment in local loans with greater safety than the foreign deposit or the deposit of public funds. Unless the bank protects itself against the possibility of the permanent loss of public funds by investing them in assets which can be liquidated on very short notice, it may sometime suddenly find its future existence dependent upon the willingness of some creditor bank to advance it the necessary cash to take care of the withdrawal of the funds. A contingency of this kind in the case of a bank already extended and using to the full such credit as it may be entitled to may indeed prove fatal. Therefore public funds are often a menace to the welfare of the country bank — particularly, if the management is not especially strong and does not know how to invest them properly.

Since public funds are usually outside money and altogether different in their nature from ordinary deposits, and since they usually bear a substantial rate of interest, they are for credit purposes often treated as borrowed money. And they may be the most undesirable kind of borrowed money, because the depositor, unlike the usual creditor bank, may not feel called upon to be lenient with the country bank and may withdraw the deposit at any time, even though the bank may be in great need of operating capital. Moreover, as already pointed out, the public depositor may not be able to prevent the withdrawal of the public funds, in spite of the fact that he may be very favorably disposed

toward the bank. If the funds are needed to meet payrolls or bond interest, for example, the public depositor will be forced to withdraw them. The ordinary bank creditor, however, is usually in a position to accommodate his demands for payment of a loan to the needs and abilities of the country bank. It is for this reason that public funds are often considered the most undesirable kind of borrowed money.

Below will be found the statement of a country bank in a section of the state devoted principally to the growing of cotton. Observe the extremely large amount of public funds on deposit. They amount to more than 70 per cent of the total deposits.

THE 'D' BANK OF 'D,' TEXAS — CONDITION AS OF MARCH 31, 1924

Bills of exchange. . . .	\$42,000	Capital stock.	\$50,000
Loans and discounts. . .	367,000	Surplus.	81,000
Overdrafts.	2,000	Profits.	2,000
United States bonds. . .	153,000	Demand deposits*. . . .	571,000
Other securities.	5,000	Time deposits.	67,000
Banking house, furniture and fixtures. . .	8,000	Circulation.	49,000
Other real estate.	21,000	Borrowed money.	5,000
Cash and exchange. . . .	220,000		
Other assets.	7,000		
Assets.	<u>\$825,000</u>	Liabilities.	<u>\$825,000</u>

* Includes public funds as follows:

County tax collector.	\$91,000
County treasurer.	250,000
City deposit.	26,000
County school deposit.	34,000
State deposit.	50,000
Total.	<u>\$451,000</u>

All of the public funds are payable on demand. They amount to more than \$450,000 and individual deposits amount to only \$188,000. This comparatively small proportion of individual deposits is found at a time when the bank has more than \$366,000 of local loans outstanding. Thus the bank has subjected to the hazards of investment in local loans, the payment of which cannot be anticipated until the fall, some seven months in the future, \$178,000 of the public funds, all

of which are payable on demand. The natural question is, What would this bank do if it should suddenly be faced with the loss of these funds? As of the date of the statement, a substantial part of the funds was offset by a large amount of cash. As the season grows older, however, loans will increase and individual deposits will decrease for the purpose of meeting expenses incident to crop operations, and cash will be depleted. Whether it will be built up again will depend upon the crop outcome.

It is true that in this particular case the bulk of the public deposits represent local county and city funds, and it may therefore be argued that this is really local money, obtained probably from local taxpayers. If most of it is to be spent locally, it will find its way in some degree back into the bank, and thus will not be lost to the community or to the bank. In this respect, it may be urged further that the deposits differ from state funds which might more accurately be termed foreign money, since upon withdrawal they probably leave the community for all time. The foregoing arguments are sound only in part, however; for even if the funds have, in the main, been obtained locally and will be expended locally, a large part of them will not be used productively, but will go to meet consumption requirements of employees, and, in any event, will become diffused throughout the community instead of concentrated to the use of the depository bank. Moreover, a substantial part of the deposits may leave the community as interest on city and county debts held outside the territory. Withdrawals on that account would be irretrievably lost. Again, the funds may be used to pay contractors for road, school, and other construction work, and, if they are not local contractors and purchasing local materials and hiring local labor, most of the money paid them will find its way out of the community.

Then, county funds may often be considered foreign money in much the same sense as state funds. Counties are usually rather large geographical areas and embrace much more than simply the trade territory of the depository bank.

Thus, even though the funds might be spent in the county, it is probable that most of them would be spent outside the bank's own territory and thus be permanently lost to it.

From what has been said it is evident that the lending bank is very deeply concerned in the maturity of the public funds (if they are not withdrawable on demand), the probable withdrawals the bank may suffer before the liquidating season, the interest paid on the funds, and the manner in which they are secured. Sometimes the interest paid is so high that they cannot be profitably invested in assets which may be carried as a secondary reserve against their withdrawal. The funds may be secured by a surety bond instead of by the pledge of actual securities, and in that event, the lending bank should inquire as to the possibility of the surety company's refusing to renew the bonds if they expire before the season of fall liquidation arrives.

BORROWINGS — *Sources*: The country bank will borrow from its commercial correspondents located in the larger cities of Texas and in the more important financial centers of the Middle West and East, such as St. Louis, Kansas City, Chicago, and New York. If the bank is a member of the Federal Reserve Bank, it may confine its borrowings entirely to that institution or may divide them up between it and the commercial correspondents. Borrowings from correspondents will usually take the form of a straight promissory note signed by an authorized officer of the country bank and secured by customers' receivables equal to at least the face amount of the note. These receivables will usually be pledged under some form of collateral agreement. Sometimes the receivables will be discounted.

In accepting the promissory note of a borrowing country bank, the city bank will often give the receivables securing it only a cursory examination, perhaps going only so far as to determine whether the receivables are small in amount and well distributed as to makers in order to obtain as diversified a risk as possible. Probably no particular atten-

tion is paid to the liquidity of each piece of paper or to its general acceptability from a credit standpoint.

On the other hand, when the country bank borrows from the Federal Reserve Bank, it is required to discount or pledge behind its note receivables which conform to the Regulations of the Federal Reserve Board as to eligibility and which are acceptable from a credit standpoint. The Reserve Bank will try to satisfy itself that each receivable represents a current liquid commercial or agricultural operation and that it is acceptable from a credit standpoint. The Reserve Bank must be scrupulous as to the kind of paper it discounts or buys from its members, because it invests in such paper part of the reserve funds of the country. It is absolutely essential to the proper functioning of the System that the reserves of member banks be invested only in paper which is inherently liquid and unquestionably acceptable as a credit risk.

A bank may borrow in other ways than by discounting its own promissory note or rediscounting its receivables. A common device is the certificate of deposit. Instead of issuing its note, the country bank may simply give its certificate of deposit with a definite maturity and bearing an agreed rate of interest in return for the money left with it. Or the bank may sell some of its bonds or other securities to a creditor bank with a so-called repurchase agreement. The bonds are actually not sold, for it is intended that the bank receiving the accommodation will repay the funds advanced and receive back its bonds within a specified time. In effect the transaction amounts to borrowing with the bonds pledged as collateral. Not infrequently a country bank may endorse some of its receivables without recourse and place them with a creditor bank. Ostensibly, it has effected an outright sale of the receivables, assuming no liability for their payment in the event the makers default at maturity. In fact, however, there may be a side agreement whereby the bank buying the receivables may charge them to the account of the selling bank in the event they are not paid when due. This under-

standing amounts to an endorsement with recourse in spite of the fact that the receivables were actually endorsed without recourse, and the bank receiving the funds should show an appropriate liability on its statement for borrowed money.

BORROWINGS — *The borrowing season:* Most of the country banks in this state do not have from their customers a steady and uniform demand for accommodation throughout the year. On the contrary, the demand is usually strictly seasonal and in most cases confined to one season; that is, during one part of the year, the bank is expanding its loans much more rapidly than it is collecting them, while in another, it is (or should be) collecting them and lending very little. Texas is largely a one-crop state, and for most of the state this one crop is cotton. By one crop is meant the money crop, the crop out of which the banker expects the farmer to pay his loan. In the cotton districts, borrowing may begin with the breaking of the soil for the next crop, and will certainly begin when planting time arrives. This is owing to the fact that, as we have seen, many farmers are completely dependent upon the bank for working capital. In southern Texas the planting season is earlier than in northern and central Texas, but in general it may be said that the country bank in a cotton district is experiencing a substantial increase in the demand for credit by March and April. The wheat bank feels the demand earlier than the cotton bank, for the wheat farmer prepares the soil and plants his crop much earlier than the cotton farmer. On the other hand, there are more operations requiring an outlay of cash on the part of the cotton farmer than of the wheat farmer, particularly with reference to cultivating the crop; therefore, the cotton farmer's demand for credit may be more steady than that of the wheat farmer. The wheat farmer may borrow as early as the fall following the harvest of the previous summer in order to break his land and prepare for planting. Then he may possibly have to borrow through the winter for living expenses and feed. Finally, in the late

spring or just before harvest he will need additional funds to buy twine, bags and the other necessities incident to harvesting and threshing.

The cotton farmer should not have to borrow after the cotton crop is 'laid by'; that is, after the crop has reached the stage where no further cultivating or any other operation entailing expense on the farmer's part need be undertaken before time for picking. The crop should be 'laid by' some time between the first and last of July, depending upon the section of the state involved. Consequently, the bank's loans should not expand materially after that time, and to the extent that its demand upon creditors for funds arises from the necessity of expanding loans, it should practically cease at that time also.¹

But the expansion of loans in order to care for the needs of borrowing customers is not the sole cause of the country bank's demand for accommodation from its correspondents and from its Federal Reserve Bank. Owing to the extremely seasonal character of its business, the country bank is very different from the city bank, which, owing to the fact that the business of its customers is diversified and more or less uniform throughout the year, can maintain a fairly steady volume of loans and deposits. The city bank is in a position to see that its loans fluctuate more or less in sympathy with its deposits, which are the source of the funds going into the loans. Thus, the loans will tend to expand as deposits increase and will tend to fall as deposits decline — all due to the very close relationship that always exists between them. The country bank, however, does not have so easy a time of it. The very forces which cause its deposits to decline operate irresistibly against a compensating decline in loans. During the crop-making season, all farmers need money. Those having it on deposit in the country bank draw it out. The country bank cannot meet this demand for withdrawals by

¹ As a matter of fact, most of the loans should have been made by the end of May. Thereafter most of the drain upon the bank should be in the form of deposit withdrawals.

restricting or collecting its loans, for there are many other farmers who, if they are to make a crop at all, must make it on borrowed money. Therefore, as stated, instead of loans falling in sympathy with the fall in deposits, they tend irresistibly to rise.

The lending bank, in order to assure itself that the country bank is not extending credit too freely and is not making undue advances after the crops have been laid by, should ask for the statements of the bank which are published in March, June, and September on call from the Comptroller of the Currency in the case of national banks, and the Commissioner of Banking in the case of state banks. It should supplement those statements by requesting others at intervals. A comparison of the statements will clearly indicate any unwarranted increase in loans.

BORROWINGS — *The liquidating season:* The cotton bank should collect a large proportion of its loans from September through January which is the season when cotton is picked and marketed, and when the borrowers should have the funds to repay advances made them by the bank for crop purposes. Likewise the proceeds of the crop should enable the bank's customers to build up their deposits. In this manner the bank should accumulate a large amount of cash, and, after paying off its obligations, should, in normal years, have a substantial sum to invest in purchased paper. The wheat bank will, of course, feel the effects of crop harvest earlier than the cotton bank, for wheat is harvested and sold in June, July, and August. Since most of the country bank's loans should be of a strictly seasonal nature and made for the purpose of raising a crop, there is no good reason why a large proportion of them should not be collected if a fair crop is obtained. Many borrowers will not pay, however, unless the banker insists upon payment. In view of the hazardous nature of a farmer's operations, a carry-over line may soon grow beyond his power to liquidate it. And because of the fact that the farmer is often tempted to dissipate the proceeds of his crop in the purchase of things of no permanent

value to him or to invest them in more land or other fixed assets instead of paying off his current bank loans, the banker should insist that he pay up his current obligations while he has the money.

The creditor banker can judge the ability of the country bank's management by its collection policy. By comparing the call statement at the close of December, when loans in the case of the cotton bank should be lowest and deposits highest, or at the close of September, in the case of the wheat bank, with a statement taken off the books the middle of August in the one case and about the first of June in the other, when the bank should be in its most extended condition, the banker should get a fairly clear idea of whether the bank was enabled to retire its obligations principally through collections or through an increase in deposits. In a fair year collections should equal the new loans made for crop purposes during the borrowing season, and they should be at least equal to the amount of the borrowings. If they are not equal to the borrowed money, it may be said that the liquidation of the debts due correspondents and the Federal Reserve Bank has come in part out of deposits. A lending bank should look upon liquidation of a debt out of deposits as undesirable for the reason that it may not be more than temporary. This is true because the deposits will in all probability be short-lived — likely to be withdrawn in the forthcoming spring. The country bank cannot restrain the withdrawal. It must therefore resort to the creditor to whom it paid over the deposits in liquidation of its obligation, or else find accommodation elsewhere. Had the obligations been paid off out of collections, the bank would not be pressed, for it has power not to make additional loans in the event it is refused accommodation by its creditors. In short, a liquidation of indebtedness out of collections can be made permanent without necessarily damaging the bank, for the bank can control its loans; a liquidation of indebtedness out of deposits, however, cannot be made permanent in a one-crop country such as this because the bank cannot control the deposits.

As soon as they begin to be withdrawn, the bank is at the feet of its creditors again, and if that creditor refuses aid and if other creditors refuse aid, it will very likely face a dangerous situation. The vital importance, both to the country bank and to its creditor, of knowing the true source of the funds which have been used to pay off obligations is evident.

Perhaps a further word along this line may be appropriate. The creditor banker is courting trouble if he does not insist that the country bank pursue a vigorous collection policy during the crop-marketing season or if he permits liquidation of the bank's indebtedness to come mainly out of an increase in deposits. Suppose the country bank is derelict in its collections, but does succeed in paying off its debt to the city bank out of increased deposits: all will go well apparently as long as nothing interferes with the normal seasonal increase in deposits. But let a crop failure or some other disaster disrupt the normal course of events, then deposits will fall far short of increasing to the customary point. The country bank will be in no position to pay off its debt. And the very condition which prevented the deposits from increasing will, when considered in the light of the probable age of many loans due to a lax collection policy, prevent much relief from being obtained out of the note case. Thus the city bank will find itself with a carry-over line on its hands and a debtor bank in an extended condition with a note case probably encumbered with many slow and undesirable loans. No other bank would come to the debtor's assistance probably in its then condition; therefore the saving of the situation would be left to the city bank. It must see the bank through to another liquidation season by advancing further funds in the hope of recovering what has been previously advanced and what might otherwise in large part be lost.

In this connection, attention is invited to the statements of the 'F' Bank appearing on the next page. It is evident that this bank reduced its borrowings out of deposits instead

THE 'F' BANK OF 'F,' TEXAS

	5/5/23	12/31/23
Loans and discounts.....	\$488,000	\$467,000
Securities.....	5,000	5,000
Banking house, furniture and fixtures.....	4,000	4,000
Cash and exchange.....	38,000	85,000
Interest and Assessments, Guaranty Fund	13,000	15,000
Assets.....	<u>\$548,000</u>	<u>\$576,000</u>
Capital stock.....	\$100,000	\$100,000
Surplus.....	70,000	70,000
Profits.....	7,000—red	none
All deposits.....	193,000	328,000
Borrowed money.....	192,000	79,000
Liabilities.....	<u>\$548,000</u>	<u>\$576,000</u>

of collections. The fact that loans have fluctuated very little, and therefore may contain a large number of capital lines, of possible danger to the bank, may be seen from the following table:

	LOANS
1-3 -23.....	\$467,000
2-9 -23.....	460,000
3-7 -23.....	462,000
4-2 -23.....	472,000
5-5 -23.....	488,000
6-6 -23.....	475,000
7-3 -23.....	461,000
8-2 -23.....	463,000
9-1 -23.....	473,000
10-1 -23.....	477,000
10-31-23.....	480,000
11-30-23.....	460,000
12-31-23.....	467,000

The loan figures in the above table would give no indication whatever of the normal seasonal liquidation of advances to customers which should characterize the operations of every properly functioning country bank in this state.

In contrast with the above figures the record of a bank in the same trade territory may prove of interest. Attention is

called to the fact that borrowings have been reduced principally out of the proceeds of collections instead of out of the increase in deposits. The question which naturally suggests itself is why one bank was able to effect such substantial collections while the other accomplished practically nothing in that direction. The answer probably is that one bank, the collecting bank, has a more aggressive management. The statements of the 'G' Bank of 'G,' Texas, cover the same period as those given above.

THE 'G' BANK OF 'G,' TEXAS

	5/3/23	12/31/23
Loans and discounts.....	\$1,861,000	\$1,443,000
Securities.....	66,000	66,000
Banking house, furniture and fixtures..	29,000	29,000
Other real estate.....	15,000	15,000
Cash and exchange.....	351,000	581,000
Other assets.....	7,000	9,000
Assets.....	\$2,329,000	\$2,143,000
Capital stock.....	\$100,000	\$100,000
Surplus.....	140,000	140,000
Profits.....	52,000	9,000
All deposits.....	1,425,000	1,605,000
Borrowed money.....	610,000	286,000
Other liabilities.....	2,000	3,000
Liabilities.....	\$2,329,000	\$2,143,000

The \$325,000 reduction in borrowed money was more than offset by the collections the bank obtained out of its note case.

The creditor banker should be mindful of one thing, however, in his comparative analysis of country bank statements. If he is not, he may be misled. A decrease in loans during the period intervening between two statements would indicate that certain of the borrowers had liquidated their obligations. This may not have been the case. Some banks have outside avenues through which they are able to dispose of their paper from time to time and assume no liability in the process. In many instances, the directors or

principal stockholders will relieve the bank of loans which have become extremely slow and uncollectible. In other cases, particularly in the cattle-raising and sheep and goat-producing regions of the state, the owners of the banks will have organized affiliated live-stock loan companies to which the banks will sell paper from time to time. Disposing of paper in either of the methods mentioned would result in a reduction of the loans carried by the bank. But the reduction would by no means signify that the loans had been collected. Relief obtained by realizing on loans in either of the above ways is not so satisfactory as that obtained by actually collecting them; for in those cases where directors have taken out loans, they have probably sapped their financial strength in doing so, and thus, since they are usually the principal stockholders of the bank, they have weakened the outside resources on which the bank could rely in time of trouble. Where the bank sells paper to an affiliated company, it usually loses the best instead of the worst paper it has, for the affiliated company will probably be under the necessity of borrowing against it — which means that the paper would have to be good and reasonably liquid. In this manner, the bank would be left with its old capital lines untouched — the lines which it was most urgently in need of collecting. If the affiliated company were used as a dumping ground for undesirable assets, the bank would be in little better condition, because the affiliated institution would doubtless be owned and controlled by the same interests owning the bank, and thus the whole operation would be of the nature of robbing Peter to pay Paul.¹

The important thing is that the loans be *collected* whenever practicable, and this is important, not only from the standpoint of the bank, but also from the standpoint of the

¹ Of course, a bank's condition would be improved to some extent regardless of the manner of ridding itself of undesirable paper — even though its shareholders should be weakened in the process. The point is, that the really desirable thing is that the loans be collected, and the banker should ascertain whether a reduction in the item represents collections or something else.

community. A vigorous collection policy is the best assurance that the loans will be kept liquid and that the proceeds will be or have been used to meet the working capital (and not the permanent capital) needs of the community. The principal duty or function of a commercial bank, as a lending institution, is to bear its reasonable proportion of the burden of supplying the community, not with permanent capital, but with the working capital needed in its current operations.

BORROWINGS — *The basis of credit:* The representatives of the country bank will probably visit the creditor bank in the early spring or at some later period during the spring or summer in order to arrange for a line of credit. The loan officer of the lending bank will, of course, go into the past record of the applicant bank to ascertain whether satisfactory balances have been maintained and whether its obligations have been liquidated seasonably. If the line granted during the past season was not fully paid up, the officer should go carefully into the reasons and should inquire concerning the plans and prospects of the applicant in the current season. He should urge upon the representatives of the bank the necessity that they handle very conservatively any new funds which he should determine to let them have, cautioning them particularly against lending them out promiscuously and urging them to use the funds principally for the purpose of caring for declining deposits. The reason why the bank had to be carried over from the preceding year was probably its overloaned condition, coupled with a poor collection policy and /or disappointing crop returns. In any event, the borrowing bank should proceed with care until it is again on a current basis. From time to time during the progress of the current season the loan officer should obtain statements from the borrowing bank in order that he may know in what way the bank is using the advances made to it.

If the applicant is one for which the lending bank did not have to carry over a part of the line extended during the

past season, the line for the coming season should be conditioned upon the needs as revealed by the management of the applicant bank and as modified by what the loan officer of the lending bank knows concerning conditions in its territory. If a good crop was made the preceding year, and if it was sold at a satisfactory price, the customers of the bank should be in a position to finance themselves for a longer time out of their own resources, and consequently the bank should have to borrow relatively less money than under contrary conditions. If later on in the season the bank attempts to increase the line granted, the loan officer would have to consider the case on its own merits. A comparison of appropriate statements would be made to determine whether the proceeds of the line already used had been recklessly loaned or had been used thriftily. He would be interested in the following questions: What did the bank borrow during a corresponding period last year? What did it need from this time last year until the peak loans and minimum deposits were reached? Did the bank collect last year as much as it advanced its customers? Did the liquidation of its indebtedness come principally out of deposits rather than out of collections? How does the condition of the bank at the present time compare with its condition at this time last year? Is it carrying a substantial amount of public funds? How much does it owe other creditors? The importance of these questions may be better understood by considering an actual case which came before the writer only a short time ago. Reference is made to the statements of the bank involved which appear on page 272. It will be observed that statements in 1923 were taken as of the beginning of the borrowing season (1/1/23), as of about the first of June (to correspond with the time in 1924 when the writer actually went into the bank's situation), and as of about the middle of August when the bank was in its most extended condition. It was early in June, 1924, that the bank had requested an increase in its line of credit. The following analysis of its condition was made:

This bank desires to run its line up from the present peg of \$60,000 to \$85,000. Mr. ——— says his board of directors agree that \$25,000 more money will have to be obtained.

So far this year borrowed money (including \$11,000 public fund deposits) has increased from zero to \$71,000. This compares with a decrease of \$5,000 for an approximately corresponding period last year. The increase this year has been occasioned by an increase of \$11,000 in loans and a decrease of \$80,000 in deposits. During the corresponding period of 1923, there was no material change in loans or deposits.

Mr. ——— states that it will require \$25,000 more to see the bank through. From this time last year until loans reached a peak and deposits a low point, the need was \$39,000 — all of which was obtained from us. This need was occasioned by a \$26,000 decline in deposits and an increase of \$15,000 in loans.

Since deposits are already \$43,000 less than they were this time last year and \$17,000 less than the 1923 low point, it would seem that they should not go much lower. Are we to conclude, therefore, that the bank will need the additional \$25,000 requested to expand its loans? Loans are now \$35,000 less than they were a year ago.

THE 'E' BANK, 'E,' TEXAS

	1/1/23	6/11/23	8/13/23	1/1/24	5/27/24
Loans.....	\$323,000	\$290,000	\$305,000	\$244,000	\$251,000
United States securities....	16,000	16,000	16,000	16,000	15,000
Other securities..	3,000	3,000	2,000	2,000	2,000
Banking house..	11,000	11,000	11,000	11,000	11,000
Other real estate	8,000	8,000	8,000	8,000	13,000
Cash.....	23,000	19,000	18,000	42,000	15,000
Other assets....	1,000	1,000	1,000	1,000	1,000
Assets.....	\$385,000	\$348,000	\$361,000	\$324,000	\$307,000
Capital.....	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000
Surplus.....	28,000	8,000	8,000	8,000	4,000
Profits.....	7,000	1,000	1,000	5,000	1,000
Circulation....	15,000	14,000	15,000	15,000	15,000
Deposits.....	203,000	199,000	173,000	236,000	167,000*
Borrowed money	70,000	65,000	104,000		60,000
Liabilities....	\$383,000	\$347,000	\$361,000	\$324,000	\$307,000

* Includes \$11,000 public funds.

BORROWINGS — *Relation to capital investment:* This section of our discussion may be concluded by saying that bor-

rowings should not be out of proportion to the capital investment of the owners in the bank. Perhaps a general rule might be that creditors should be well informed regarding the borrowing bank's situation before allowing its indebtedness to exceed the capital investment. No hard-and-fast rules can be laid down, however, because each case is distinct and must be handled in the light of the special circumstances surrounding it. Should borrowings, including public funds, become disproportionate to the capital investment, it might be advisable for the lending bank to require that an additional margin of collateral be pledged or a directors' guaranty given to secure any future advances made to it.

B. THE MANAGEMENT

The officers: The success of the bank depends upon the management, and the lending bank considers the quality of the country bank's management the most important factor entering into the question of granting it credit. As a matter of fact, most of the preceding discussion of the subject of extending credit to the country bank has dealt with results or conditions which in nearly every case run back to the character of the bank's management as the cause. It is often the case that the position of managing officer of a country bank is not remunerative enough to attract men of real ability. In some cases, the managing officer has some outside pursuit which he follows in order to supplement his meager salary. Under such circumstances incompetence is fostered and what the bank saves on the officer's salary it more than loses in assets which, through mismanagement, have to be charged off.

Of course, the officers of the country bank should be thoroughly familiar with the industries and enterprises of the trade territory. They should know the productive power of those industries and enterprises and should base their extensions of credit to them upon that knowledge. It should at all times be their concern to confine the opera-

tions of their institution as far as possible within its own resources. They should not set a bad example by borrowing too freely from the bank or by letting their obligations run indefinitely.

The directors: The directors of a country bank too frequently leave its management entirely in the hands of one man. They are legally responsible for the sound conduct of its affairs; they should take their duty seriously and endeavor to perform it. It is often through their lack of interest that the bank becomes extended and suffers serious losses as a result of incompetent official direction.

The lending bank is interested in knowing whether the directors are active in the management of the country bank's affairs. It is interested also in knowing whether they are men of responsibility, able to come to the bank's assistance in time of trouble.

The directors, like the officers, should not abuse their connection with the bank by borrowing unwarranted sums from it and for unwarranted periods of time.

C. THE WESTERN TEXAS BANK

The problem of the western bank: Within the past few years a large part of the ranch country west of Fort Worth, and centering around Lubbock and Plainview, has been undergoing a marked transformation. Ranches are being cut up into farms and planted largely to cotton. Consequently, many country banks which formerly confined their operations to financing the breeding and raising of cattle are now confronted with a different type of business altogether — that of financing the farmer. The breaking-up of the ranches has resulted in an influx of a new population which has settled on the newly created farms. For the most part, these farmers are without means and entirely dependent upon the bank for working capital. They are not a class that has an accumulated surplus. The permanent deposits that a bank has must come from depositors who have surpluses and a steady income. The result of the

lack of working capital on the part of the new western farmer is that the bank's deposits fluctuate very widely during the year. They will be high in the fall and winter and undergo a remarkable falling-off in the spring and summer — thus testifying to their temporary character and to the lack of accumulated surpluses on the part of the new population. The typical country bank in the black-land belts differs from the western bank in this respect. Its territory has long been settled and has been productive for many years; consequently, a substantial part of the farming population is of the non-borrowing class, and constitutes the class from which the permanent deposits of the bank are obtained. Deposits will usually not fluctuate so widely in the black-land banks as in the western banks. The 'E' Bank, whose statement appears on page 272 is a typical black-land bank. From January 1, 1923, to August 13, 1923, its deposits declined from the high point of \$203,000 to a low point of \$173,000. The decline amounted to about 14 per cent. Over the same period a typical bank in the heart of the new farming section in the western part of the state suffered a decline in deposits of approximately 56 per cent. The bank had about the same capital investment as the black-land bank, but its peak deposits amounted to \$754,000 and its minimum deposits to \$332,000, as against \$203,000 and \$173,000 respectively in the case of the black-land bank.

Deposits decline to a very low point in the western bank, not only because the farmer needs his money to put in his crop and meet the current expenditures necessary to its cultivation and harvest, but, owing to the fact that he is in a new country, he uses a large part of his money on deposit with the bank for the purpose of providing for certain fixed capital requirements on his farm — such as work stock, tools, fences, barns, sheds, and even houses. It follows, therefore, that, since the deposits of the bank may be so temporary in their nature, it should throw every precaution about investing them. The bank should maintain relatively large reserves and should try to invest a substantial portion of de-

posits received in the fall in such securities as usually go to make up the so-called secondary reserve. If a policy of this kind is not carried out, undue reliance upon creditors may be the outcome.

D. SUMMARY — A GOOD BANK

The qualifications of a good country bank may be summarized as follows:

(a) Good management — intelligent, experienced, competent, and safe.

(b) Borrowings, if any, moderate in amount.

(c) Public deposits, if any, invested in quick assets, usually not local loans.

(d) Substantial secondary reserves in the fall and winter after harvest, such reserves consisting of call loans, Government bonds, bankers' acceptances, commercial paper.

(e) A clean note case; loans well distributed as to size and as to borrowing interests, as far as local conditions will permit.

(f) Satisfactory earning capacity.

E. THE COUNTRY BANK AND THE COMMUNITY

Position of the bank in its community: Owing to the fact that so many farmers in this section of the country have little or no working capital and are thus dependent almost from the beginning of the crop year upon the bank for the means of producing a crop, the country bank is often virtually a partner in the farming operations of its community. It is perhaps not unduly exaggerating to say that in many cases, where the bank is financing a tenant, it is in effect itself engaged in farming by means of hired labor. Owing to this dearth of working capital on the part of the farmers, and their consequent dependence upon the country bank, the bank is logically in a position to wield a powerful influence over the way in which farming operations shall be carried on. It is to be regretted that many banks have not realized the responsibility of their position and the great good

they are able to do. Some banks, however, are beginning to combat the one-crop system in its most extreme phases by insisting that customers raise their food and feed on the farm. It would seem that the banks could do good work in proselytizing the farmers in the matter of saving their surpluses and profits as savings deposits or other liquid investments rather than as equities in land and other permanent investments. The great need of many farmers is working capital. They should accumulate it out of their earnings; the bank should take the lead and show them how to do it.

In fairly recent years there has grown up a tendency on the part of country merchants to sell on a cash instead of a credit basis. Consequently, the country banks have had to take up the burden laid down by the merchants. In some communities this additional burden has become too heavy, for the banks have frequently not increased their capital investment or deposits in proportion to the additional responsibilities assumed. The result has been an increasing reliance upon creditors. This brings us to the important question of just how far the country bank should go in shouldering the credit burden of its community.

It is true that in theory the bank, being an institution of credit, should be the source of credit. But certain practical considerations may limit its ability to serve alone in that important capacity. A bank should guard against becoming overextended. It cannot serve its community by overreaching itself. The very first duty of every bank is not to its community, but to its creditors and depositors. Its second duty is to its stockholders, for they are responsible for its existence, and would never have created it if they were not to be permitted to regulate its affairs in such a manner as to yield them a profit from its operations. The bank's third duty is to the community: to provide a reasonable proportion of the funds necessary to satisfy the working capital requirements of its legitimate industries and enterprises. By misconceiving its true duty and thereby attempting to shoulder alone a credit burden which is too heavy for it, the bank cannot

operate with satisfaction to its creditors, depositors, shareholders, or the community. A weakened and extended bank is no element of strength in the community, although it may have come into that condition in its attempt to serve the community. A sound bank, on the other hand, is a decided element of strength, although it did not attempt to carry the whole burden of financing the community on its own shoulders. And, furthermore, the strong bank, in apparently serving the community less, has actually served it more and better than the weak bank.

THE END

APPENDICES

APPENDIX I

COST OF WHEAT PRODUCTION

THE following figures have been taken from financial statements of farmers and represent estimates of the cash outlay per acre in 'laying by' the crop (i.e., the costs of preparing the soil, planting, and all expenses up to the time of harvest), on the one hand, and the cash outlay of harvesting it, on the other. Since no details are available as to how the farmers arrived at their estimates and as to just what in each case is included in them, the figures are offered here more as a matter of interest than as possessing any positive value as a basis for generalization.

Estimates are given on individual financial statements.

THE PANHANDLE AND WEST TEXAS

— HALE AND CARSON COUNTIES

1921			1922		
COST OF LAYING BY	COST OF HARVESTING	YIELD	COST OF LAYING BY	COST OF HARVESTING	YIELD
\$1.50	\$2.50	14	\$3.00	\$4.00	12
3.50	3.00	12	4.00	3.50	23
3.50	3.00	15	3.50	4.00	10
3.00	2.00	15	3.00	2.50	15
4.50	4.50	15	3.00	3.00	10
3.00	5.00	15	4.00	5.00	15
			2.00	1.75	6
			2.50	3.00	15
			3.00	1.75	12

CENTRAL TEXAS — WISE, NAVARRO, DALLAS, YOUNG COUNTIES

1922		
COST OF LAYING BY	COST OF HARVESTING	YIELD
\$5.00	\$2.00	10
4.00	2.00	10
4.00	1.00	18
4.00	4.00	15
6.00	2.00	15
5.00	4.50	10
5.00	3.00	10
4.00	7.50	12*
3.00	10.00	10*
3.00	8.00	10*

* These figures are from statements of Young County farmers. It would seem that they had unusually high costs of harvesting the crop.

APPENDIX II

TENANT'S CAPITAL*

	1913	1920
4 mules.....	\$700	\$650
Harness.....	32	100
Breaking plow.....	55	70
2 cultivators.....	75	150
2 planters.....	60	112
2 wagons.....	180	230
1 pair of harrows.....	15	27
1 stalk cutter.....	26	65
6 hoes.....	4	6
Scales for weighing cotton.....	2	3
Buggy and harness.....	130	135
Horse.....	150	100
Cotton sacks.....	10	20
TOTAL.....	\$1439	\$1658

* See *supra*, page 59 ff. for discussion of this tenant's operations.

APPENDIX III

CASH OUTLAY PER ACRE IN RAISING COTTON AS SHOWN BY INDIVIDUAL REPORTS

COUNTIES REPRESENTED	CROP YEAR	CASH COST OF LAYING BY	CASH COST OF GATHERING	YIELD OF LINT PER ACRE (bales)
Denton.....	1920	\$8.00	\$4.00	1/4
Ellis.....	1920	6.00	8.00	1/2
Frio.....	1920	5.00	5.00	1/5
Hidalgo.....	1920	6.00	3.00	2/3
AVERAGE.....		\$6.25	\$5.00	42/100
Bowie.....	1921	\$6.50	\$3.50	1/3
Bowie.....	1921	6.00	4.00	1/3
Coleman.....	1921	3.00	5.00	1/3
Dallas.....	1921	10.00	5.00	1/2
Dallas.....	1921	5.00	7.00	1/2
Delta.....	1921	5.00	6.00	1/2
Delta.....	1921	4.00	4.00	2/3
Ellis.....	1921	5.00	10.00	1/2
Hill.....	1921	5.00	7.50	1/2
Hill.....	1921	3.50	5.00	1/2
Hill.....	1921	5.00	5.00	1/3
Jim Wells.....	1921	7.00	7.00	1/2
Jim Wells.....	1921	5.00	6.00	1/2
Jim Wells.....	1921	7.00	7.00	1/2
Kaufman.....	1921	3.00	3.75	1/3
Navarro.....	1921	15.00	5.00	1/2
Navarro.....	1921	15.00	8.00	1/3
Navarro.....	1921	10.00	6.00	1/3
Red River.....	1921	2.00	3.00	1/3
Red River.....	1921	5.50	4.00	1/3
Red River.....	1921	5.00	4.00	1/2
Red River.....	1921	8.00	4.00	1/2
Red River.....	1921	3.00	4.00	1/3
Red River.....	1921	4.00	4.00	1/2
Red River.....	1921	5.00	4.00	1/3
Red River.....	1921	7.50	3.75	1/4

APPENDIX III (*continued*)CASH OUTLAY PER ACRE IN RAISING COTTON, AS SHOWN
BY INDIVIDUAL REPORTS

COUNTIES REPRESENTED	CROP YEAR	CASH COST OF LAYING BY	CASH COST OF GATHERING	YIELD OF LINT PER ACRE (bales)
Red River.....	1921	\$5.00	\$4.00	1/2
Red River.....	1921	7.00	3.00	1/2
Red River.....	1921	5.00	4.00	1/2
Red River.....	1921	2.00	3.00	1/3
Red River.....	1921	5.00	7.50	1/2
Red River.....	1921	4.00	6.00	1
Red River.....	1921	3.00	5.00	1/2
Red River.....	1921	4.00	3.00	1/3
Sabine.....	1921	6.00	5.00	1/3
Travis.....	1921	10.00	8.00	1/3
Wise.....	1921	7.50	7.50	1/2
Wise.....	1921	7.50	7.50	1/2
Young.....	1921	2.50	10.00	1/4
Young.....	1921	2.00	20.00	1/3
Young.....	1921	2.00	20.00	1/3
AVERAGE.....		\$5.66	\$6.05*	44/100
Coleman.....	1922	\$5.00	\$5.00	1/4
Hale.....	1922	3.00	5.00	1/2
Hale.....	1922	5.00	5.00	1/3
Hale.....	1922	3.00	6.00	1/4
Hale.....	1922	3.50	5.00	1/3
Hale.....	1922	2.50	5.00	1/3
Hale.....	1922	2.50	5.00	1/3
Hale.....	1922	2.50	5.00	1/3
Hale.....	1922	2.50	2.00	1/2
Hale.....	1922	3.00	4.00	1/3
Hale.....	1922	2.00	4.00	1/3
Hale.....	1922	2.00	4.00	1/2
Hale.....	1922	2.00	4.00	1/4
Hale.....	1922	3.00	5.00	1/3

* Unduly influenced by exceptionally high figures for Young County.

APPENDIX III (*continued*)CASH OUTLAY PER ACRE IN RAISING COTTON, AS SHOWN
BY INDIVIDUAL REPORTS

COUNTIES REPRESENTED	CROP YEAR	CASH COST OF LAYING BY	CASH COST OF GATHERING	YIELD OF LINT PER ACRE (bales)
Hale.....	1922	\$3.50	\$5.00	1/3
Kaufman.....	1922	6.00	8.00	1/2
Lamar.....	1922	6.00	6.00	1/3
Red River.....	1922	4.00	5.00	1/3
Red River.....	1922	3.00	4.00	1/2
Red River.....	1922	5.00	2.00	1/2
Red River.....	1922	3.00	4.00	1/2
Red River.....	1922	5.00	3.00	3/4
Red River.....	1922	3.00	4.00	1/2
Red River.....	1922	5.00	3.00	1/2
San Patricio.....	1922	5.00	6.50	1/2
San Patricio.....	1922	5.00	6.50	1/2
San Patricio.....	1922	5.00	6.00	1/2
AVERAGE.....		\$3.70	\$4.70	41/100
Red River.....	1923	\$7.00	\$4.00	1/2
Red River.....	1923	5.00	4.00	1/3
Red River.....	1923	4.00	3.00	1/2
Red River.....	1923	3.00	5.00	1/2
Red River.....	1923	3.00	5.00	1/3
Red River.....	1923	3.50	2.50	1/3
AVERAGE.....		\$4.17	\$3.83	42/100

APPENDIX IV

COST OF PRODUCTION OF MUTTON AND WOOL IN TEXAS *

	1918	1919	1920
Number of sheep.....	24,000	15,000	22,000
Pounds of wool per head.....	7.5	7.9	10.1
Sheep investment per head.....	\$11.20	\$13.30	\$10.50
Receipts per head in flock.....	5.78	9.14†	
Expenses (including interest on investment at 6 per cent).....	4.98	5.61	4.92
Expenses (excluding interest).....	3.62	3.65	3.38
Profits (including interest).....	.80	3.53†	
Profits (excluding interest).....	2.16	5.49†	
Ratio of receipts (wool).....	67%	43%	
Ratio of receipts (lamb and mutton)....	33%	57%	
Receipts per pound of wool.....	50.7¢	50.3¢	
Expenses (including interest).....	43.2	32.1	
Expenses (excluding interest).....	32.7	21.4	
Profits (including interest).....	7.4	18.2	
Profits (excluding interest).....	18.0	28.9	
Receipts from mutton and lamb (per head of sheep in flock).....	\$1.96	\$5.17†	
Expenses (including interest).....	1.60	3.08	
Expenses (excluding interest).....	1.15	1.96	
Profits (including interest).....	.36	2.10†	
Profits (excluding interest).....	.81	3.21†	
Per cent expense made up of labor.....	26%	29%	20%
Per cent expense made up of feed.....	13%	2%	
Per cent expense made up of fees and rents.....	14%	9%	
Per cent expense made up of shearing...	2½%	3.7%	2.8%
Per cent expense made up of miscellaneous	13%	16%	18%
Per cent expense made up of interest at 6 per cent.....	27½%	34.9%	31.3%

* For details see *The Wool Growing Industry*, chapter 10.

† Increase in receipts largely in form of inventories.

APPENDIX V

THIS appendix contains analyses of typical statements and will illustrate the practical importance of a knowledge of the trade practices and characteristics of various lines of business as discussed at length in Part Three of this study. The analyses are arranged in the same order as that followed in Part Three.

MANUFACTURING

The cotton mill business: On page 288 is given the balance sheet of the 'A' Cotton Mills Company. The statements are rendered as of August 31, or just before the mill will enter upon its borrowing programme to lay in supplies of the next season's cotton. As of this date a liquid condition would be expected. In the present case a very liquid condition is shown in the 1923 statement. The current ratio is higher than three to one. Total indebtedness is small in comparison with net worth. By January, 1924, of course, indebtedness will increase considerably. Receivables are small in amount.

Borrowings are principally in the form of bank loans, as would be expected, since cash is paid for the cotton purchased.

Observe the very heavy investment in plant and equipment, and the large reserves for depreciation set up against them. These assets have been depreciated more than 50 per cent.

The comparison of the 1923 statement with the 1922 statement shows a much improved condition. Very satisfactory profits were apparently earned during the interval, most of which, if not all, were left in the business, and applied on the indebtedness.

Comparative statements of the 'B' Cotton Mills Company appear on page 289. They show the condition of the 'B' company at that period of its fiscal year when it should be in its most liquid condition (August 31, 1923) and then at that period when it should be carrying its heaviest inventories and consequently its heaviest indebtedness (March 15, 1924).

It will be seen from the 1923 statement that while, in comparison with 1924, indebtedness is low, still the company is shown to owe more on current account than it has quick assets on hand. This would indicate that operations have not been profitable or that the company has used some of its liquid capital for fixed investment purposes.

Observe that in the 1924 statement current debts are practically equal to quick assets. It would be expected that, owing to the seasonal need of credit, the margin of quick assets over current liabilities

BALANCE SHEET OF THE 'A' COTTON MILLS COMPANY

	8-31-22	8-31-23
Cash.....	\$26,353	\$16,016
Accounts receivable.....	48,712	29,719
Notes receivable.....	none	none
Inventory.....	80,664	103,261
TOTAL QUICK ASSETS.....	\$155,729	\$148,996
Mill buildings.....	\$91,449	\$91,448
Machinery.....	235,025	235,681
Other assets.....	40,017	45,796
TOTAL ASSETS.....	\$522,220	\$521,921
Notes payable to banks.....	\$100,000	\$35,000
Accounts payable.....	1,560	592
Accrued items.....	6,790	7,279
TOTAL CURRENT LIABILITIES.....	\$108,350	\$42,871
Reserve for depreciation.....	\$143,515	\$173,069
Capital stock.....	270,000	270,000
Surplus.....	355	35,981
TOTAL LIABILITIES.....	\$522,220	\$521,921

would not be very great in the late winter, but that does not mean that the current operations should be carried on entirely on borrowed money, as appears to be the case with regard to this company.

Observe how inventory is segregated into raw material (cotton), finished products (mainly duck), goods in process, etc. This segregation is highly desirable. If we were provided with figures as to the number of bales of cotton and the number of bales of duck represented by the inventory, we should be in a better position to pass judgment upon the reasonableness of the valuations shown in the balance sheet.

We should also know to what extent the inventories are covered by actual sale contracts or orders from customers, and whether the inventories not so covered are protected by hedges. These are important matters in view of the heavy reliance of the company upon its bankers.

In the 1924 statement, indebtedness is very heavy in proportion to net worth. As of March, however, indebtedness would normally be large.

The company has a large surplus which, together with the large accumulated reserve for depreciation, would indicate that it has had a successful past.

BALANCE SHEET OF THE 'B' COTTON MILLS COMPANY

	8-31-23	3-15-24
Cash.....	\$3,919	\$292
Accounts receivable.....	40,095	21,084
Inventories.....		
Manufactured goods (duck).....	64,987	283,705
Goods in process.....	29,620	31,208
Cotton	23,812	269,389
Commissary	4,659	4,617
Total inventories.....	\$123,078	\$588,919
TOTAL QUICK ASSETS.....	\$167,092	\$610,295
Real estate.....	\$41,439	\$39,000
Plant and machinery.....	660,783	675,639
Other assets.....	26,645	1,234
TOTAL ASSETS.....	\$895,959	\$1,326,168
Notes payable to banks.....	\$165,523	\$591,088
Accounts payable.....	197	549
Accrued items.....	5,451	3,263
TOTAL CURRENT LIABILITIES.....	\$171,171	\$594,900
Reserve for depreciation.....	\$207,969	\$207,969
Capital stock.....	300,000	300,000
Surplus.....	216,819	223,299
TOTAL LIABILITIES.....	\$895,959	\$1,326,168

One of the features of the statement is the fact that the plant is unencumbered, for the plant, in this case, is the only margin of safety which the current creditors have.

On account of the tendency to operate so largely on borrowed money, the paper would not appear attractive unless supported by substantial guaranties or endorsements. Still if the company were protected from the risk of serious loss on account of fluctuations in inventory values, and if its operations were on a profitable basis, our attitude would be somewhat more favorable.

The cotton seed oil mill business: It would appear from the statements of the 'A' Cotton Seed Oil Company on page 290 that the company is not an attractive credit risk. The company lost nearly \$12,000 during the year ended May 15, 1924, as shown by the decrease in surplus and also by the income account. Observe the large excess of current liabilities over quick assets, indicating accumulated operating losses or the transference of liquid into fixed assets. This is one

APPENDIX

BALANCE SHEET OF THE 'A' COTTON SEED OIL
MILL COMPANY

	5-15-23	5-15-24
Cash.....	\$1,411	\$3,068
Accounts receivable.....	21,783	24,118
Notes receivable.....	26,044	27,495
Inventory (mainly crude oil).....	18,018	76,011
QUICK ASSETS.....	\$67,256	\$130,692
Plant and equipment.....	246,394	246,405
TOTAL ASSETS.....	\$313,650	\$377,097
Notes payable.....	\$120,505	\$139,334
Acceptances.....	26,176	83,629
Accounts payable.....	2,152	994
CURRENT LIABILITIES.....	\$148,833	\$223,957
Capital stock.....	100,000	100,000
Surplus.....	64,817	53,140
TOTAL LIABILITIES.....	\$313,650	\$377,097

INCOME ACCOUNT OF THE 'A' COTTON SEED OIL MILL COMPANY FOR
THE YEAR ENDED 5-15-24

Inventory beginning of year....	\$15,961	Sales.....	\$114,651
Purchases of seed.....	134,060	Inventory end	
		of year.....	73,866
TOTAL.....	\$150,021	TOTAL.....	\$188,517
Manufacturing expenses.....	\$15,984	Other income...	\$5,201
Interest.....	10,791	Miller's indem-	
Overhead and other expenses....	23,674	nity.....	687
TOTAL ORDINARY EXPENSES...	\$200,470	TOTAL.....	\$194,405
Loss on sale of gin.....	5,611	Net loss.....	11,676
TOTAL.....	\$206,081	TOTAL.....	\$206,081

of the principal criticisms to be raised against the statement. Attention is called to the fact that current liabilities exceed net worth by \$70,000 or by about 50 per cent. The mill is very badly undercapitalized. On the assumption that it could sell all of its quick assets for 100 cents on the dollar, it would fall short of being able to liquidate its current debts by \$93,000. Unless, therefore, the owners contribute additional capital to the business for the purpose of retiring this excess indebtedness, the creditors will simply have to wait until such time as the profits will enable the company to pay, or until some of the fixed assets are sold.

The 1924 statement has been extracted from a complete auditor's report. Among the schedules in the report is one which details the notes receivable. From this schedule it appears that these notes represent sums due from private parties and most of them have maturities well into 1925 and 1926. They have obviously not arisen out of the company's regular operations, for a cotton oil mill should not have notes receivable in its statement, and, because of their long maturities, they should not be regarded as quick assets. We are not informed as to how the mill acquired them.

A comparatively large inventory is carried in the 1924 statement, in view of the fact that the statement is rendered as of the end of the season. But most of the inventory is made up of crude oil, which is proper since a mill should not be carrying much of last year's seed at the end of its fiscal year and on the eve of a new cotton crop. We are not told whether the mill is under contract to sell this oil.

Attention is called to the rather substantial amount of acceptances payable. These are probably accepted demand drafts. The mill, instead of giving its bank a note to cover the entire amount of its borrowings, has accepted some of the demand drafts drawn upon it by the sellers of seed — the bank advancing the necessary funds to pay the sellers against the accepted drafts.

The outstanding feature of the income account is the fact that the company did a pitifully small business in proportion to the total capital employed in the business (both borrowed and owned). Sales, even if we include inventory on hand as sold, would amount to only \$188,000 as against borrowed capital on statement date (when, by the way, borrowings should be at the lowest point) of \$224,000 and owner's capital of \$153,000. If we consider only the actual sales of the company, we find that interest paid on borrowed money during the year amounted to nearly 10 per cent of sales. Total expenses amounting to nearly \$51,000 were almost 50 per cent of sales. The main fault may be traced to the small volume of business, for the gross profit on such volume as the mill had was satisfactory. It amounted to about 33 per cent of sales.

The risk would appear to be very undesirable.

The situation is very different in the case of the 'B' Cotton Seed Oil Mill Company, whose statement appears below. Comparative statements are there submitted principally to show the seasonal character of the business. The October statement shows the company carrying heavy inventories, and, it is agreeable to note, the company is carrying its burden mainly on the strength of its own resources. The July statement shows the company in its most liquid condition. Observe the large amount of cash and the nominal liabilities. This company operates on a conservative basis, and this, in spite of the fact that a loss of \$16,000 was incurred during the year. The loss is represented by the fact that quick assets decreased \$73,000 and fixed assets decreased \$10,000 (depreciation), whereas current liabilities decreased only \$67,000.

BALANCE SHEET OF THE 'B' COTTON SEED OIL MILL COMPANY

	10-31-23	7-1-24
Cash.....	\$10,386	\$48,273
Accounts receivable.....	11,214	1,245
Notes receivable.....	none	none
Inventory.....	104,960	4,381
TOTAL QUICK ASSETS.....	\$126,560	\$53,899
 Plant and equipment.....	 118,387	 108,858
TOTAL ASSETS.....	\$244,947	\$162,757
 Notes due banks.....	 \$50,000	
Accounts payable.....	18,734	\$1,931
TOTAL CURRENT LIABILITIES.....	\$68,734	\$1,931
 Capital stock.....	 100,000	 100,000
Surplus.....	76,213	60,826
TOTAL LIABILITIES.....	\$244,947	\$162,757

Since the owners of the business do not follow the usual practice of calling upon creditors to carry the full burden of its operations, but contribute themselves a very substantial part of the working capital needed to run the business, the banker might consider the company a desirable risk for a reasonable line on a straight note basis. The company has apparently built up a very comfortable surplus, indicating that its operations in the past have been conducted on a generally profitable basis. We assume, of course, that the surplus has arisen solely from earnings.

This company is similar in size to the 'A' company, but there is no question as to which would be the more desirable credit risk. The 'A' company is operating very heavily on borrowed money, whereas the 'B' company depends mainly upon the capital contributed by its own shareholders.

The Flour Milling Industry: From the statements and income account of the 'A' Flour Milling Company given on page 294, it would appear that this company is not an attractive credit risk. The 1923 statement may be analyzed as follows:

(a) Inventory considerably exceeds receivables. This is to be expected in the light of what we know of the selling terms and turnover in this business. Moreover, at statement date inventory would normally be high.

(b) More information as to what proportion of the item of \$134,207 is collection items would be of value, for such items are practically the equivalent of cash; whereas if the bulk of it is notes, it may be of a very unliquid character. It is not customary for a flour mill to sell its products on a note basis.

(c) The striking unfavorable feature of the statement is the inadequacy of the working capital. The owners have practically nothing invested in the working end of the business. While no large excess of quick assets over current liabilities is normally required, for reasons already pointed out, nevertheless the margin should be very much greater than it is in the present case. This mill is badly undercapitalized.

(d) In line with what has just been said, observe that current indebtedness is nearly one and a half times the inventory. Creditors, banks principally, are being called upon to carry not only the mill's inventory but also a substantial part of the receivables.

(e) Not only have the owners invested practically nothing in the mill's quick assets, but they do not even own the plant and machinery free of debt. They have borrowed \$250,000 or over 30 per cent of the present book value of those assets.

(f) Altogether, the creditors of the concern have over \$1,324,000 invested in the business as against only \$592,000 invested by the owners — or nearly 2.3 times as much.

Comparing inventory with sales at cost, we find that the mill had a turnover of more than four times during the year, and this of course is based on the end-of-year inventory figure which is probably somewhat higher than the average inventory carried.

Net profit during the year was very small. There would actually have been a substantial deficit if there had not been a large amount of 'other income.' This means either that the margin of profit is too narrow or that the expenses are too high. The source of the other in-

BALANCE SHEET OF THE 'A' FLOUR MILLING COMPANY

	12-31-22	12-31-23
Cash.....	\$150,222	\$95,488
Accounts receivable.....	88,716	162,908
Bills receivable and collection items.....	133,550	134,207
Inventories of grain, flour, bran, etc.....	580,255	717,005
QUICK ASSETS.....	\$952,743	\$1,109,608
Due banks and brokers.....	\$866,400	\$1,050,500
Accounts payable.....	44,969	23,997
CURRENT LIABILITIES.....	\$911,369	\$1,074,497
Excess quick assets.....	41,374	35,111
Plant and equipment.....	783,891	806,590
TOTAL.....	\$825,265	\$841,701
7 per cent bonds.....	250,000	250,000
NET WORTH.....	\$575,265	\$591,701
Capital stock.....	600,000	600,000
CAPITAL IMPAIRMENT.....	\$24,735	\$8,299

INCOME ACCOUNT OF THE 'A' FLOUR MILLING COMPANY FOR THE YEAR ENDED 12-31-23

DEBIT	CREDIT
Inventory January 1st.. \$580,255	Inventory 12-31..... \$717,005
Purchases..... 3,002,361	Cost of sales..... 2,865,611
TOTAL.....\$3,582,616	TOTAL.....\$3,582,616
Cost of sales.....\$2,865,611	Net sales.....\$3,148,482
Salaries, interest, advertising and general operating expenses... 341,294	All other income..... 116,628
Depreciation..... 24,680	
Bad debts..... 6,652	
Miscellaneous..... 10,437	
Net profit..... 16,436	
TOTAL.....\$3,265,110	TOTAL.....\$3,265,110

come should be ascertained and also whether any portion of the operating expense was incurred in obtaining it.

A comparatively small sum was charged to depreciation on the mill and equipment. This may be due to the fact that the plant is new. A comparatively small amount was charged off for bad debts also, but a comparison of receivables with sales indicates that only about 34 days' sales are outstanding. This is quite an acceptable showing.

The situation with regard to this company may be summarized by saying that it is seriously undercapitalized — a condition which the owners should remedy by paying in additional capital or, at least, by leaving in the business such profits as may be earned. Since the mill has little direct control over its gross profits, except by the judicious purchases of its grain, efforts of the management should be directed to curtailing expenses and increasing volume.

The business of the 'B' Flour Milling Company appears to be in

BALANCE SHEET OF THE 'B' FLOUR MILLING COMPANY
AS OF JUNE 30, 1923

Cash.....	\$133,141	Due banks.....	\$109,150
Accounts and notes re-		Accounts payable.....	12,567
ceivable.....	253,268	Accrued accounts.....	6,316
Inventory.....	55,270		
QUICK ASSETS.....	\$441,679	CURRENT LIABIL-	
		ITIES.....	\$128,033
Mill, machinery, etc....	365,842	Depreciation reserve..	54,251
TOTAL ASSETS.....	\$807,521	TOTAL LIABILITIES..	\$182,284
		Net worth.....	625,237
		TOTAL	\$807,521

good condition, if we may judge from its statement. Receivables very greatly exceed inventory, but this is explained in part by the date of the statement, June 30, 1923. The statement is rendered just before the new crop of wheat will be harvested, and of course the inventories of the old crop should be used up before the new grain comes on the market. As a matter of fact, the inventory at statement date should consist almost entirely of flour, bran, and shorts.

Receivables appear to be too large. Since no sales figures are provided, we are unable to reach a definite conclusion concerning them.

Attention is called to the strong cash position. Cash exceeds total current liabilities. The current position of the company is exceptionally good, as it should be as of statement date.

Current borrowings are mainly from banks, as they should be in a business which pays cash for its raw materials.

The plant and equipment are free of indebtedness.

In short, the business appears to be in a sound condition. The banker should ask for some information concerning the liquidity of the receivables, however. Monthly sales figures would answer his purpose.

The harness and saddlery business: Comparative statements of the 'A' Harness and Saddlery Manufacturing Company are given below. Receivables exceed inventory in the 1922 statement by more than 50 per cent, although as of statement date collections should have been fairly well in hand. The 1922 season was reasonably favorable to the agricultural interests of the state, and many carry-over lines of credit from past seasons should have been closed out or materially reduced. Observe the large amount of notes receivable, of which more than \$28,000 are past due. Since merchandise is usually not sold on a note basis, we must conclude, in the absence of an explanation, that the notes receivable represent accounts which have been closed out. The large amount of receivables is responsible for the business having to rely heavily on creditors, who have two thirds as much invested in the concern as the owners.

Nearly half of what the owners have invested is represented by plant and equipment which would be of uncertain value in the event of liquidation of the business. Note also the weak cash position in the 1922 statement, as evidenced by the nominal cash on hand, the large overdraft and the checks outstanding. The company was badly extended on October 31, 1922.

Now let us turn to the 1923 statement. Here we find a very great improvement. Current liabilities have been reduced by about \$115,000, which brings them to a much more reasonable amount in comparison with the net worth of the business. Practically the entire reduction in current liabilities is accounted for by the reduction of bank debt. The current ratio is much improved.

Apparently the decrease in current liabilities is mainly traceable to the decrease in notes receivable which amounted to more than \$100,000. If we knew that the concern had been so fortunate in its collections as to derive \$100,000 from what had been its slow accounts, we should have cause for exceptional confidence in the management. It is probable, however, that the company did not actually collect \$100,000 of its notes receivable. Then how did it accomplish that great reduction in its indebtedness to banks? It is possible that the banks were called upon to take a substantial loss, receivables of the company being assigned to them; for the 1922 statement indicated that some sort of an arrangement would probably

BALANCE SHEET OF THE
'A' HARNESS AND SADDLERY MANUFACTURING COMPANY

	10-31-22	10-31-23
Cash.....	\$210	\$3,416
Accounts receivable.....	111,285	106,941
Notes receivable.....	122,598*	20,557
Merchandise.....	147,817	128,561
Other quick assets.....	225	1,000
QUICK ASSETS.....	<u>\$382,135</u>	<u>\$260,475</u>
Plant and equipment.....	123,429	96,264
TOTAL ASSETS.....	<u>\$505,564</u>	<u>\$356,739</u>
Notes due banks.....	\$175,000	\$75,898
Overdraft.....	12,882	
Checks outstanding.....	5,441	
Accounts payable.....	10,484	12,582
Other current liabilities.....	1,171	
CURRENT LIABILITIES.....	<u>\$204,978</u>	<u>\$88,480</u>
Capital stock.....	260,000	260,000
Surplus.....	40,586	8,259
TOTAL LIABILITIES.....	<u>\$505,564</u>	<u>\$356,739</u>

* \$28,221 past due.

have to be made with the banks in regard to the debts due them. It is also possible that the stockholders or some outside interests absorbed the loss in the notes receivable by paying in new capital, the proceeds of which were used to retire current indebtedness. Perhaps the actual fact was a combination of a loss taken by the banks, new capital paid in by the stockholders or outside parties, and some collections. In any event, before extending the company credit, we should know just what happened after the 1922 statement was rendered and whether there was a change in management.

Comparative statements of the 'B' Harness and Saddlery Manufacturing Company appear on page 298. The company should be, and is, in a liquid condition as of statement date, May 31st. The 1923 statement shows a current ratio of more than two for one and a satisfactory proportion of indebtedness to net worth.

The thought suggests itself, however, that possibly the business has not reduced its current indebtedness as much as it should have been reduced as of statement date. We should be in a better position to check this point if a sales figure were available. If current

BALANCE SHEET OF THE
'B' HARNESS AND SADDLERY MANUFACTURING COMPANY

	5-31-22	5-31-23
Cash.....	\$6,079	\$3,526
Accounts receivable.....	111,018	77,780
Notes receivable.....	16,939	6,555
Merchandise on hand.....	395,069	421,346
QUICK ASSETS.....	<u>\$529,105</u>	<u>\$509,207</u>
Sundry slow assets, mainly machinery.....	23,402	81,436
TOTAL ASSETS.....	<u>\$552,507</u>	<u>\$590,643</u>
Notes to Banks.....	\$61,500	\$130,500
Notes to officers and stockholders.....	50,844	29,710
Accounts payable.....	49,162	44,627
Accrued items.....	3,750	5,534
CURRENT LIABILITIES.....	<u>\$165,256</u>	<u>\$210,371</u>
Capital stock.....	150,000	350,000
Surplus.....	237,251	30,272
TOTAL LIABILITIES.....	<u>\$552,507</u>	<u>\$590,643</u>

liabilities are somewhat high as of statement date, the fault could hardly be attributed to poor collections, for receivables appear to be very low. Inventory, however, may be too high. It exceeds the net worth.

A comparison of the two statements reveals several interesting facts:

(a) During the year a stock dividend was apparently declared and paid in the amount of \$200,000, for capital stock has increased by that amount and surplus decreased correspondingly.

(b) In spite of an increase of \$45,000 in current liabilities, quick assets actually decreased \$20,000. This \$65,000 is accounted for to the extent of \$58,000 by an increase in fixed assets and to the extent of the remainder by a loss. There has thus been a transference of liquid capital into fixed capital. Ordinarily such an operation is to be frowned upon when the liquid capital so transferred is represented by short-time borrowings, as it is in part in this case.

(c) As a whole, however, the showing made by the statements is satisfactory. Even though inventory may be rather heavy, it no doubt mainly represents goods which are readily salable. Thus the company would merely have to decrease its purchases for a time to bring the inventory into a more normal position.

WHOLESALE

The cotton merchant and exporter: The statement of the 'A' Cotton Company, on page 300, is rendered as of October 15th at which time we would normally expect the company to be carrying a considerable stock of cotton and to be borrowing a substantial sum of money, inasmuch as October 15th is well into the cotton marketing season. The statement shows the concern to be carrying 2300 bales of cotton valued at a little over \$269,000, or at \$115 per bale or 23 cents per pound. This figure would check closely with the spot quotation as of about the date of the statement. It is important to know to what extent the company has the cotton hedged, and since the statement does not throw any light upon that point, it would be incumbent upon the banker to obtain the information before entering into a commitment for a line of credit.

The company is carrying cash on hand equal to nearly 20 per cent of the total current liabilities.

Attention is called to the small item of 'Differences in final and provisional invoices' amounting to a little over \$1600. Often in the case of call purchases by a foreign importer, the cotton will be shipped out before the importer has actually made his call. Inasmuch as the final price to be paid for the cotton cannot be fixed until the cotton is actually called, it is necessary that the merchant draw a draft for a provisional amount. It is understood in these cases that when the call is made, any difference between the call price and the price at which the cotton is actually billed will be adjusted. For example, if a foreign importer has contracted to buy cotton at 200 on March and if shipments are to be made by November 1st; then if no call has in the meantime been made, the merchant, at the time of making each shipment, will draw on the importer at 200 on the then-existing quotation for March, subject to adjustment on the basis of the March quotation at the date call is made. Should the adjustment be in favor of the merchant, he would show the amount due him as a receivable under some such caption as that appearing in the statement of the 'A' Cotton Company.

Attention is called to the very heavy current indebtedness relative to the net worth. Current indebtedness is almost five times the net worth. As already pointed out, however, the cotton merchant, during the fall and winter months, is ordinarily borrowing very heavily in order to meet his urgent need of capital to finance his operations. It will be noticed that notes payable to banks do not appear among the current liabilities. Instead, there are the items 'cotton acceptances payable' and 'cotton drafts unaccepted.' This company apparently pursues the practice of accepting drafts drawn upon it by

APPENDIX

BALANCE SHEET OF THE
'A' COTTON COMPANY AS OF 10-15-23

Cash.....	\$45,022	Acceptances payable. (1910 B/C).....	\$200,620
Differences in final and provisional invoices...	1,613	Unaccepted drafts (391 B/C)	41,044
Accounts receivable.....	2,117	Accounts payable.....	4,539
Cotton (2300 bales).....	269,415	Other current.....	154
Patches.....	2,459		
QUICK ASSETS.....	\$320,626	CURRENT LIA- BILITIES.....	\$246,357
Other assets.....	4,304	Accrued losses:	
		On open hedges.....	6,847
		On undelivered sales.	19,677
TOTAL ASSETS....	\$324,930	TOTAL ACCRUED LOSSES.....	\$26,524
		Capital stock.....	50,000
		Surplus.....	2,050
		TOTAL LIABILI- TIES.....	\$324,931

BALANCE SHEET OF THE
'B' COTTON COMPANY AS OF 7-31-23

Cash.....	\$209,254	Due to banks.....	None
Joint account with 'M' & Company.....	26,470	Accounts payable.....	\$25,630
Accounts receivable.....	8,210		
Bills receivable.....	8,000		
Cotton (222 bales).....	31,304		
QUICK ASSETS.....	\$283,239	CURRENT LIA- BILITIES.....	\$25,630
Other assets.....	4,415	Capital...\$297,100	
		Less im- pair- ment... 35,076	262,024
TOTAL ASSETS.....	\$287,654	TOTAL LIABILI- TIES.....	\$287,654

local buyers, local supply merchants, and its own purchasing agents in the interior towns, the bank advancing funds against the acceptances with which the debts due the sellers of the cotton in the interior towns are liquidated. Inasmuch as most of these drafts will be drawn payable on demand, it will be seen that the drawers are released when the drafts are accepted (instead of paid) by the merchant. When a bank consents to finance a cotton merchant on the basis of his accepted demand drafts, it usually charges such drafts to a bill of exchange account carried in the name of the merchant. The account is ultimately liquidated by means of the credits arising from drafts drawn by the merchant on the purchasers of cotton from him. Bill of exchange accounts are very active.

The item of 'cotton drafts unaccepted' represents very recent cotton shipments to the merchant, against which the drafts have probably come into the merchant's bank but have not yet been accepted by him.

Losses sustained as of statement date amount to more than half the capital stock. The company would appear to be borrowing too heavily, and the banks should therefore look well to their margins.

The statement of the 'B' Cotton Company, on page 300, is rendered in the late summer, when the cotton merchant should ordinarily have wound up his past season's operations and before he should require credit for the forthcoming season. Therefore, the borrower's affairs should be in a very liquid condition. Liabilities should be nominal; cotton stocks should be low; and cash and other very liquid assets should be high in amount. The proportion of indebtedness to net worth should be low. Expectations in these respects are met by the statement of the subject company.

Observe the substantial impairment of capital amounting to over 12 per cent. This would lead us to inquire whether the company has been playing the market open by carrying stocks of cotton unprotected by hedges.

The distribution of farm implements: The statements of the 'A' Implement Company on page 302 show the company to be undercapitalized. In the 1923 statement, the investment of the owners is not sufficient to carry the merchandise. Current indebtedness is only \$21,000 less than the net worth, indicating that the creditors have nearly as much invested in the business as the owners themselves. The current ratio is 1.7 to 1, hardly high enough for a business with as slow a turnover as this, with such long terms of sale, and with a demand subject to all the hazards of agriculture. During the year ended December 31, 1923, the company lost \$2500. Quick assets decreased \$4000, but current liabilities increased \$21,000. The

BALANCE SHEET OF THE 'A' IMPLEMENT COMPANY

	12-31-22	12-31-23
Cash	\$23,980	\$17,781
Accounts receivable	24,881	30,426
Notes receivable	38,030	23,239
Merchandise inventory	138,027	149,210
QUICK ASSETS	\$224,918	\$220,656
Leasehold improvements	26,923	49,225
TOTAL ASSETS	\$251,841	\$269,881
Notes due banks	\$100,000	\$95,000
Notes due for merchandise		3,124
Accounts payable	3,313	20,505
Accrued accounts	913	6,088
CURRENT LIABILITIES	\$104,226	\$124,717
Capital stock	135,000	135,000
Surplus	12,615	10,164
TOTAL LIABILITIES	\$251,841	\$269,881

decrease in quick and increase in current are accounted for to the extent of \$2500 by the loss in operations, but the great bulk of it, or \$23,000, is accounted for by an increase in leasehold improvements. Thus, the company has used funds obtained, directly or indirectly, from current creditors to finance the construction of certain leasehold improvements, a fixed asset. In the light of the already undercapitalized condition of the company as reflected by the 1922 statement, such a use of liquid capital was improper. Moreover, it would appear that owing to the nature of the business and the size of the capital investment, the company has too much invested in leasehold improvements. This item amounts to about 34 per cent of the company's net worth.

Attention is directed to the fact that receivables appear to be very reasonable in amount in proportion to inventory carried. Of course, at statement date inventory would normally be high. The inquiry as to whether the company has sold any of its receivables would be pertinent. No contingent liability is shown, however.

The statement of a company in very good condition appears on page 303. One evidence of the fact that the 'B' Implement Company is in good condition is the current ratio which stands at better than 2.3 to 1. Moreover, the total indebtedness is considerably less than

50 per cent of the net worth. In contrast with the 'A' company, this company has not only enough capital to carry its entire inventory, but also enough to carry its building and equipment and a part of its receivables. It apparently practices the theory that the owners of a mercantile business should ordinarily supply the capital necessary to care for the fixed assets and also enough to provide the *permanent* working capital (the inventory necessary to run the business and care for the ordinary demand), calling upon creditors only for assistance in carrying receivables to collection and to care for the seasonal increase in inventory. This company has more than enough receivables and cash to pay off every dollar it owes without disturbing its investment in inventory.

Receivables exceed merchandise, which is to be expected, particu-

BALANCE SHEET OF THE 'B' IMPLEMENT COMPANY

	7-31-24
Cash.....	\$10,500
Accounts and notes payable.....	230,476
Merchandise inventory.....	205,477
QUICK ASSETS.....	\$446,453
Notes payable to banks.....	\$110,000
Due X & Y Plow Company, Chicago.....	77,058
Accounts payable.....	7,034
CURRENT LIABILITIES.....	\$194,092
NET WORKING CAPITAL.....	\$252,361
Building and equipment.....	210,062
TOTAL.....	\$462,423
All other liabilities.....	
NET WORTH.....	\$462,423
Capital stock.....	\$200,000
Surplus.....	262,423
NET WORTH.....	\$462,423

larly at the date of the statement. No doubt a large part of the sales are made on long time, settlement being made by note.

The company does its financing through banks and its parent company, located in Chicago. It is apparently a subsidiary corporation of the Chicago concern. It might therefore be advisable to know

something about the financial condition of the parent owing to the fact that it probably controls the local company.

Attention is called to the large surplus, which is over 30 per cent in excess of the capital stock. If this surplus has been accumulated out of earnings, it is fine testimony to the ability of the management — especially since the past few years in this state have not been very happy ones for the farm implement trade.

The wholesale grocery trade: On pages 306, 307 are given financial statements of the 'A' Wholesale Grocery Company and the 'B' Wholesale Grocery Company. The 'A' company appears to be in satisfactory condition. It has \$2.50 of quick assets for every dollar of current liabilities. This is better than the average. At the end of the year, however, the current ratio would normally be favorable. The Robert Morris Associates have made up a composite statement from 108 wholesale grocery statements, all dated December 31, 1923, and the current ratio revealed by the composite statement is only 2.08 to 1.¹

The company turned its stock during the year more than seven times which is also better than the average. Receivables outstanding at statement date aggregate less than 30 days' sales, indicating that the credit policies of the company are sound and its collections good.

The current indebtedness is less than 50 per cent of the net worth. The company is conservative in its use of borrowed capital.

The profit and loss account shows a gross profit of 14 per cent of sales which is from 2 to 3 per cent above the average figure reported by the Bureau of Business Research of Harvard as a result of an extensive survey made in 1922. Total expense is about 10 per cent of sales which is somewhat less than the average figure reported by the Harvard Bureau and indicates a net profit of more than 4 per cent, a figure which is exceptionally high and speaks well of the management of the business.

In short, this company is in a very liquid condition, pursues sound business policies and would be a very attractive risk for any bank. A line of credit up to \$80,000 might be freely granted.

The statement of the 'B' company is an interesting contrast with the statement which we have just considered. The current ratio is only 1.5 to 1 as compared with 2.5 to 1 in the case of the 'A' company. Note the heavy proportion of indebtedness to net worth — current indebtedness is practically one and one half times the net worth, indicating that creditors have almost half as much more at stake in the business than the owners. The owners of the 'A' company, how-

¹ Bulletin of the Robert Morris Associates, June, 1924, page 25.

ever, have more than twice as much invested as the creditors. The 'B' company is seriously undercapitalized. We find the cause of this condition in the fact that its collections have been very poor. As of statement date, when the full benefit of the fall liquidating period should have been felt, receivables aggregated more than two and one half months' sales. The 'A' company had less than 30 days' sales outstanding at statement date. Attention is called to the large amount of *bills* receivable, indicating that a large number of accounts were closed out by note in the preceding fall owing to the inability of the debtors to pay. Under normal conditions, as of statement date receivables should not amount to much more than \$200,000. Could the receivables in excess of \$200,000 be collected, the company could dispense with over \$220,000 of borrowed capital, thus reducing total current liabilities from \$496,000 to \$276,000 and raising the current ratio from 1.5 to 1 to almost 2 to 1. The proportion of current indebtedness to net worth would be reduced from 148 per cent to about 80 per cent.

During the year, gross profit amounted to 9.7 per cent of sales and is somewhat below normal. Expenses amounted to 11.3 per cent of sales and are slightly above normal. Thus, through competitive conditions or through an unwise merchandising policy, the company is not receiving the gross profit it should, while at the same time it is not restricting the expense of conducting business to correspond with its lessened margin of gross profit. It is therefore clear that on the basis of the gross profit and expense percentages just given the company is operating, probably, on an unprofitable basis, as far as the grocery end of the business alone is concerned. The income account shows a net profit for the year of about \$20,000, but income from sources other than the grocery operations amounted to nearly \$54,000 — made up principally of interest on receivables and the net profit from cotton dealings.

The company is turning its merchandise at about the same rate as the 'A' company.

The two outstanding unfavorable features of this company's position are: first, too much of the capital in use is borrowed because of the frozen condition of a large amount of the receivables; second, the gross profit is too small. It is remarkable that banks would, under the circumstances, have permitted this company to run up its bank lines to \$321,000 which is only a little less than the entire net worth.

The wholesale hardware trade: Comparative balance sheets of the 'A' Wholesale Hardware Company and the 'B' Wholesale Hardware Company appear on page 309. The 'A' company is in excellent condition and is apparently well managed. The indicated inventory turnover of three and a half times a year is satisfactory. The receivables

BALANCE SHEET OF THE 'A' WHOLESALE GROCERY COMPANY
AS OF 12-31-23

Cash.....	\$5,114	Notes payable.....	\$51,000
Notes and acceptances re- ceivable (customers)...	843	Accounts payable for merchandise.....	12,594
Accounts receivable (customers).....	61,463	Tax reserve.....	5,196
Merchandise.....	104,945		
QUICK ASSETS.....	\$172,365	CURRENT LIABILI- TIES	\$68,790
Real estate and buildings.	50,544	Mortgage on building..	13,020
Machinery, fixtures, etc..	2,995	Capital stock.....	100,000
Delivery equipment.....	3,120	Surplus.....	47,214
TOTAL ASSETS.....	\$229,024	TOTAL LIABILITIES..	\$229,024

INCOME ACCOUNT OF THE 'A' WHOLESALE GROCERY COMPANY
FOR YEAR ENDING 12-31-23

Merchandise on hand 1-1-23.....	\$113,735
Merchandise purchased.....	724,373
TOTAL.....	\$838,108

Less Merchandise on hand 12-21-23..... 104,945

NET COST OF MERCHANDISE SOLD..... 733,163

Net cost merchandise sold.....	\$733,163	Gross sales.....	\$847,484
Interest & discount paid	3,737	Cash discounts on mer- chandise purchased..	10,199
Salaries paid to officers..	15,625	Other income.....	7,800
Taxes.....	3,235		
Other expenses.....	55,606		
Depreciation charged off	3,409		
Bad debts charged off...	4,267		
Discounts allowed.....	5,729		
Net profit.....	40,712		
TOTAL DEBITS.....	\$865,483	TOTAL CREDITS.....	\$865,483

BALANCE SHEET OF THE 'B' WHOLESALE GROCERY COMPANY
AS OF 2-29-24

Cash.....	\$34,742	Notes payable.....	\$321,000
Notes and acceptances re- ceivable (customers)...	176,658	Notes payable to others.....	68,000
Accounts receivable.....	255,642	Accounts payable for merchandise.....	4,398
Merchandise or materials per inventory.....	273,314	Deposits of customers..	38,090
Advances on cotton.....	24,864	Receivables discounted..	64,891
QUICK ASSETS.....	\$765,220	CURRENT LIABILI- TIES.....	\$496,379
Real estate.....	60,930	Due stockholders.....	15,578
Fixtures.....	6,225	Reserve for depreciation	515
Delivery equipment.....	8,055	Capital stock.....	270,000
Other assets.....	8,431	Surplus.....	66,389
TOTAL ASSETS.....	\$848,861	TOTAL LIABILITIES..	\$848,861

INCOME ACCOUNT OF THE 'B' WHOLESALE GROCERY COMPANY
FOR YEAR ENDING 2-29-24

Merchandise on hand 2-28-23.....	\$301,516
Merchandise purchased.....	1,835,251
TOTAL.....	\$2,136,767
Less merchandise on hand per inventory.....	273,314
NET COST OF MERCHANDISE.....	\$1,863,453
Net cost of merchandise sold.....	\$1,863,453
Interest and discount...	44,661
Salaries and labor.....	61,653
Taxes and license.....	16,405
Other expenses.....	82,602
Depreciation charged off	8,755
Bad debts charged off..	21,036
Net profit.....	19,781
TOTAL DEBITS.....	\$2,118,346
Gross sales.....	\$2,064,629
Interest on notes....	30,578
Dividends.....	1,079
Cotton department..	22,060
TOTAL CREDITS...\$2,118,346	

represent considerably less than 60 days' sales, which is also satisfactory. Receivables in this line of business should always be substantially less than inventory on account of the fact that they turn much more rapidly than inventory. In the present case, receivables are less than half the merchandise on hand.

The company is carrying more than \$33,000 in bills receivable and this item is probably a slow asset, because notes are usually not taken by the wholesaler except to close out delinquent accounts. It would therefore seem that some of the company's customers have been unable to settle their accounts. They are no doubt country merchants who have been adversely affected by the crops produced in their communities.

The current ratio is about five to one, and this of course is very good because it indicates that the company operates conservatively. Its own stockholders provide the greater proportion of its working capital. It is true, however, that as of the date of the statement the company should be in its most liquid condition, because both receivables and inventory are ordinarily lowest at the end of the year.

The 'B' company is about as large as the 'A' company, and their statements are rendered as of the same date. The statement of the 'B' company, however, makes a much less favorable showing than that of the 'A' company. It is true that the current ratio is more than two for one, and the fact that the general showing of the statement would not cause one necessarily to question the company's solvency might justify the opinion that the company is an acceptable credit risk. There are certain points with reference to the statement, however, which the banker should regard as unfavorable and concerning which he should advise the management.

In the first place, the company is carrying forward into the new year a line of \$225,000, a sum substantially in excess of two thirds of the entire net worth. With practically the same amount of quick assets as the 'A' company just discussed, the 'B' company has current liabilities nearly two and one half times those of the 'A' company and its capital investment is nearly 33 per cent less than that of the 'A' company. These facts would make it a less desirable credit risk.

Receivables are too heavy, and attention is called particularly to the very large amount of bills receivable, no doubt representing delinquent accounts closed out by note. The bank should require a complete analysis of this asset. Taken together, the accounts and bills receivable amount to about three months' sales, whereas, at statement date, they should not amount to more than 60 days' sales, if the company is functioning properly. The reader should compare the showing made in this regard by the 'A' company.

Inventory is being turned only slightly more than twice a year,

COMPARISON OF BALANCE SHEETS OF 'A' AND 'B' WHOLESALE
HARDWARE COMPANIES

	'A'	'B'
	12-31-23	12-31-23
Cash.....	\$20,793	\$8,028
Accounts receivable.....	120,517	137,765
Bills receivable.....	33,287	102,560
Merchandise.....	339,668	266,194
Other quick assets.....		1,036
QUICK ASSETS.....	\$514,265	\$515,583
 Bills payable (banks).....	 \$71,000	 \$224,500
Trade acceptances.....	2,677	405
Accounts payable.....	17,354	6,602
Accrued items.....	15,021	
CURRENT LIABILITIES.....	\$106,052	\$231,507
 Net working capital.....	 \$408,213	 \$284,076
Fixed and slow assets.....	60,328	29,669
NET WORTH.....	\$468,541	\$313,745
 Capital.....	 419,000	 \$250,000
SURPLUS.....	\$49,541	\$63,745
 Sales.....	 \$1,486,048	 \$724,650*
Net profit.....	not stated	1,390 — loss
Current Ratio.....	5 to 1	2.2 to 1
Debt to worth.....	23%	74%

* Cost of sales — \$582,716.

and this is figured on the end of the year inventory which should be somewhat smaller than the average annual inventory. The 'A' company had a turnover of nearly three and one half times, if we assume gross profit to have been 20 per cent of sales.

In short, it would seem that, owing to poor collections and the carrying of a larger inventory than the volume of business warrants, a part of the substantial bank lines has become 'frozen.' Receivables should properly be only about two thirds their present amount, and if the inventory were reduced to an amount to permit it to turn three times a year, the company could realize capital amounting in the aggregate to about \$150,000, or enough to pay off all but about \$82,000 of the current liabilities. It is therefore evident from this analysis that the company is paying a penalty in the form of a heavy interest charge for its lax credit and collection policies and for its lack of en-

ergy in pushing its merchandise. The interest charge at seven per cent on \$150,000 would amount to more than \$10,000 a year. It is interesting at this point to note that the company actually operated at a loss during the year.

The hay, feed, and grain business: As indicated by its statement the cash position of the 'A' Wholesale Hay, Feed, and Grain Company is strong. Cash plus receivables (probably, for the most part, drafts) is almost enough to retire total current indebtedness. This is somewhat unusual for the time of year when the statement is rendered. Ordinarily at that time demands upon creditors would be heavy and cash somewhat low.

Inventory is by far the largest single item in the statement. No physical quantity figures are furnished, consequently, we have no way of telling whether this inventory valuation is in line with the market, and since the statement would not come to us until some time after the figures were actually made up, we should be interested in knowing what the market had done since the date of the statement. If the course of the market had been downward and if the inventory at statement date was heavy, as it appears to be in this case, we should ask what the effect of the downward trend had been upon the company under consideration.

Notes receivable are negligible in amount as they should be in a business of this kind.

Practically all of the current liabilities are in the form of notes due to banks. This is proper, for the business purchases little or nothing on open account. The dealer is called upon to honor sight drafts and he generally settles by means of a check drawn against his line of credit at the bank.

The current ratio is nearly three for one, unusually high, one would think, for that season of the year when the concern would normally be depending very heavily upon the bank for assistance. This company, however, finances most of its operations with its own capital.

There is a heavy investment in buildings and machinery, probably representing elevators, corn or feed mills, or, possibly also, a flour mill. The concern may manufacture some feedstuffs and sell them under its copyrighted brands.

Current indebtedness is very small in proportion to net worth, especially so when due weight is given to the concern's strong cash position. But it is interesting to note that the business has suffered some very heavy losses in the past, for capital stock is impaired to the extent of \$54,000 or 18 per cent. The question might arise as to whether the company had been speculating in grain or whether the losses accrued from the normal operations of the business. As in the

BALANCE SHEET OF THE 'A' WHOLESALE HAY, FEED AND GRAIN
COMPANY AS OF 12-31-23

Cash.....	\$34,069	Notes due banks.	\$90,000
Accounts and drafts.....	56,761	Accounts payable.....	1,485
Bills receivable.....	2,876		
Grain, hay, etc.....	163,148		
Other quick assets.....	843		
QUICK ASSETS	\$257,697	CURRENT LIABILI-	
		TIES.....	\$91,485
Buildings and machinery..	\$118,445	Real estate mortgage..	\$33,686
Real estate.....	27,446	Depreciation reserve..	49,862
Other assets.....	17,305		
TOTAL ASSETS.....	\$420,893	TOTAL LIABILITIES..	\$175,033
Deficit.....	54,140	Capital stock.....	300,000
TOTAL.....	\$475,033	TOTAL	\$475,033

cotton business, the grain business affords numerous opportunities to speculate.

On the whole, the statement makes a very satisfactory showing on condition that it is correctly drawn up (for it is not audited). The banker should require some definite information, however, as to the method of valuing the inventory and as to the physical quantities composing it, before making any commitment to purchase its paper or increase its line of credit.

The wholesale jewelry trade: The statement of the 'A' Wholesale Jewelry Company shown on page 312 is very satisfactory. There is more than enough cash on hand to pay off all the current liabilities. The large accumulated surplus, amounting to almost four times the capital stock, indicates with what success the business has been conducted.

Total receivables amount to about \$63,000 or three and one half months' sales. In the light of what has previously been said about this line of business, this is not too heavy a volume of outstandings. It might be pertinent to inquire in this connection as to what proportion of the notes receivable represent slow accounts that have been closed out in this manner and what proportion represent sales on a note basis.

The slowness of inventory turnover in this line of business may be seen from the fact that the comparison of inventory with sales reveals a rate of turnover of less than two times for the past year. It

should be remembered in this connection, however, that the inventory figure shown on the balance sheet is probably higher than the average figure, because we know that as of about April 1 spring trade would call for a substantial increase in merchandise on hand. It is probable that, based on an average inventory figure, this company has an annual turnover of about two times.

BALANCE SHEET OF THE 'A' WHOLESALE JEWELRY COMPANY
AS OF 3-31-23

Cash.....	\$24,503	Due banks.....	
Accounts receivable.....	33,731	Bills payable (dia-	
Notes receivable.....	29,262	monds).....	\$5,411
Merchandise inventory....	126,619	Accounts payable. . .	14,354
<u>QUICK ASSETS.....</u>		<u>CURRENT LIABILI-</u>	
	<u>\$214,115</u>	<u>TIES.....</u>	<u>\$19,765</u>
Furniture and fixtures....	2,988	Capital stock.....	42,000
		Surplus.....	155,338
<u>TOTAL ASSETS.....</u>	<u>\$217,103</u>	<u>TOTAL LIABILITIES.</u>	<u>\$217,103</u>
Sales.....\$220,152			

The statement of the 'B' Wholesale Jewelry Company also makes a satisfactory showing. It is dated January 31, 1924, at which time the company should be in a liquid condition. The expectation in this regard is fully met by the company. The current ratio is more than four to one. A fairly high current ratio should normally be shown by a jewelry jobber's statement, however, owing to the slow turnover of merchandise, the long terms of sale, and owing to the fact that the merchandise is a luxury rather than a necessity. Indebtedness is only 24 per cent of net worth.

The large amount of accounts payable should be explained, however. Accounts amount to more than \$102,000 as against a bank line of only \$25,000. The company possibly has been purchasing rather heavily for the spring trade, or a substantial part of the accounts may represent long-time diamond purchases. In the absence of some such explanation, however, they would appear to be out of line.

The wholesale paper trade: The current ratio in the statement of the 'A' Wholesale Paper Company is more than three to one and is satisfactory. Accounts payable are properly very low in amount, the bulk of the indebtedness being made up of notes payable to banks. The company takes its discounts. In the absence of an explanation,

BALANCE SHEET OF THE 'B' WHOLESALE JEWELRY COMPANY
AS OF 1-31-24

Cash.....	\$32,856	Bills payable to banks	\$25,000
Accounts receivable.....	152,299	Accounts payable....	102,296
Bills receivable (mdse.)....	45,357	Accruals.....	1,144
Merchandise.....	364,764		
QUICK ASSETS.....	\$595,276	CURRENT LIABILI-	
		TIES.....	\$128,440
Slow assets.....	23,669	Capital stock.....	475,000
		Surplus.....	15,505
TOTAL ASSETS.....	\$618,945	TOTAL LIABILITIES.	\$618,945

the presence of \$31,000 of bills receivable is undesirable, for they probably represent slow accounts which have been closed out by note or trade acceptance. The paper jobber usually sells on no other basis than the open account.

Receivables exceed merchandise by nearly \$130,000 and appear to be out of line. They represent about 70 days' sales — too many as of statement date, after the company has had the benefit of fall collections. We are leaving out of consideration the notes receivable which amount to about 10 days' sales.

BALANCE SHEET OF THE 'A' WHOLESALE PAPER COMPANY
AS OF 12-31-23

Cash.....	\$1,229	Bills payable (bank)..	\$100,000
Accounts receivable.....	234,448	Accounts payable....	19,285
Bills receivable.....	30,508	Accrued items.....	5,271
Merchandise.....	139,885	Other current liabili-	
		ties.....	8,592
QUICK ASSETS.....	\$406,070	CURRENT LIABILI-	
		TIES.....	\$133,148
Real estate and building..	\$107,300	Real estate mortgage.	\$40,000
Machinery and equipment.	84,052	Capital stock.....	200,000
		Surplus and profits...	224,274
TOTAL ASSETS.....	\$597,422	TOTAL LIABILITIES	\$597,422

Sales.....\$1,234,327

Inventory turns rapidly. Allowing for a gross profit of 25 per cent of sales, we find that inventory, as measured by the figures on the statement, turned about seven times in 1923. This rapid turnover of inventory together with the apparent poor collection policy of the

company will account for the wide difference between the receivables and inventory.

Total current indebtedness is only a little more than 30 per cent of net worth, indicating that the company does not rely too heavily upon creditors. Observe the large amount of surplus and profits. They exceed the capital stock.

A statement of the 'B' Wholesale Paper Company is given below. The inventory turnover of about six times is satisfactory. This company handles the coarse grades of paper and manufactures cartons and paper boxes.

Receivables are practically all in the form of accounts as they should be, and represent only slightly more than a month's sales, which is very satisfactory.

The current ratio, however, is unsatisfactory. It is less than two to one. Current indebtedness amounts to about 87 per cent of net worth and is too heavy, indicating a condition of undercapitalization. This is the principal criticism to be raised in connection with the statement.

There is a rather large item of trade acceptances on the statement. It should be explained. It is probable that the company has an arrangement with certain manufacturers whereby settlement is to be made on a trade acceptance basis.

The investment in machinery and equipment is substantial, but the company, as stated above, does a large amount of manufacturing of paper cartons and boxes.

BALANCE SHEET OF THE 'B' WHOLESALE PAPER COMPANY
AS OF 12-31-23

Cash.....	\$8,058	Bills payable (bank)..<	\$45,000
Accounts receivable.....	68,732	Trade acceptances...	23,374
Bills receivable.....	1,987	Accounts payable....	28,204
Merchandise.....	87,719	Accrued and other ac-	
		counts.....	1,500
QUICK ASSETS.....	\$166,496	CURRENT LIABILI-	
		TIES.....	\$98,078
Machinery and equipment	\$43,115	Net worth.....	\$111,536
TOTAL ASSETS.....	\$209,611	TOTAL LIABILITIES..	\$209,611

Sales.....\$666,656

The wholesale produce trade: In the statement of the 'A' Wholesale Produce Company given below, it is clear that receivables are too heavy in proportion to merchandise and sales. While receivables are normally in excess of merchandise, and especially as of June,

still a ratio of \$8 of receivables to \$1 of merchandise is too high. A comparison of receivables with sales reveals the fact that outstandings on the books amount to nearly three months' sales — entirely too high in the light of the customary short selling terms.

The bills receivable should be explained. Ordinarily they would appear in the dealer's statement only as representing closed-out accounts.

This particular company is relatively small. On account of this fact, among others, a proportion of current indebtedness to worth of 77 per cent is too high. Banks alone have over half as much invested in the business as the owners. Although merchandise amounts to only \$12,000, the company owes trade creditors more than \$15,000.

BALANCE SHEET OF THE 'A' WHOLESALE PRODUCE COMPANY
AS OF 6-20-23

ASSETS		LIABILITIES	
Cash.....	\$2,068	Bills payable banks..	\$37,905
Accounts receivable.....	71,088	Accounts payable....	15,046
Bills receivable.....	12,492		
Merchandise.....	11,822		
QUICK ASSETS.....	\$97,470	CURRENT LIABILITIES.....	\$52,951
Machinery	\$11,736		
Real estate.....	6,712		
Delivery equipment.....	6,249	NET WORTH.....	\$69,216
TOTAL ASSETS.....	\$122,167	TOTAL LIABILITIES.....	\$122,167

Sales.....\$360,491

Accounts payable appear to be high. They not only exceed the merchandise on hand, but we know that the dealer usually buys his goods on a sight draft basis.

The above unfavorable aspects of the statement are emphasized by the fact that it is dated the latter part of June, at which time the dealer should be in his most liquid condition and his statement should show to the best advantage.

Inventory apparently turns rapidly enough. The fault simply is that receivables are too high, necessitating heavy borrowings and heavy overhead in all probability, besides increasing the risk from bad debts.

The statement of the 'B' Wholesale Produce Company, on page 316, makes an entirely acceptable showing. Receivables exceed mer-

Wholesale wearing apparel (wholesale dry goods): On page 318 is the statement of the 'A' Wholesale Dry Goods Company. It shows the company to be in an undercapitalized condition. Current indebtedness amounts to nearly 90 per cent of net worth — too high a proportion for a business of this size and particularly for the time of year when the statement was rendered. The statement is dated December 31, 1923, as of which date the business should be in a liquid condition and the proportion of debt to worth should be relatively low.

The cause of the undercapitalization is the fact that the company is carrying too heavy an inventory for the volume of business it is doing. Comparing inventory as shown on the statement (which, by the way, is probably smaller than the average inventory carried during the year) with sales at cost, we find that the company has enough stock on hand to run it about eight and one half months, indicating a turnover of less than one and one half times a year. On the assumption that a turnover of four times is normal, inventory should amount to not more than \$65,000 or \$70,000, or about \$100,000 less than the figure shown on the statement. It follows, therefore, that if this excess inventory were turned into cash and applied on the current indebtedness, the latter would be almost entirely liquidated.

As a result of carrying too much stock, the business has probably 'frozen up' the larger part of the proceeds of its current indebtedness. Not only is this true, but the risk from depreciation in value of the merchandise is greatly increased. Moreover, since the excess inventory necessitates heavy borrowings, the expense of conducting the business is increased. Observe in this case the item of \$8095 for interest and discount paid. It is hardly possible that this item represents solely interest paid to banks and other creditors, but in all probability it includes a heavy expenditure on that account. It may include cash discounts to customers, but since only about one half the retail trade avail themselves of the discount, the item in question would probably contain not more than \$3000 representing discount on sales of \$303,000. This would leave \$5000 representing interest paid, an amount in excess of the net profit for the year and more than twice the amount received through the taking of discounts on goods purchased during the year.

A further result of carrying too much stock is the apparent exhaustion of the company's credit. This is evidenced by the fact that a very large part of the current indebtedness is made up of trade acceptances and notes given to trade creditors. We know that companies in good standing buy only on open account and borrow from banks to take the cash discounts offered. Further evidence of the

BALANCE SHEET OF THE 'A' WHOLESALE DRY GOODS COMPANY
AS OF 12-31-23

Cash.....	\$3,000	Notes to banks.....	\$20,615
Accounts receivable.....	60,545	Notes and trade ac-	
Merchandise on hand.....	171,649	ceptances for mdse	47,560
		Accounts payable....	37,752
		Accruals.....	79
QUICK ASSETS.....	\$235,194	CURRENT LIABILI-	
		TIES.....	\$106,006
Furniture and fixtures.....	7,576	Due officers and	
		friends.....	13,106
		Capital stock.....	25,000
		Surplus.....	98,658
TOTAL ASSETS.....	\$242,770	TOTAL LIABILITIES	\$242,770

INCOME ACCOUNT OF THE 'A' WHOLESALE DRY GOODS COMPANY
FOR THE YEAR ENDED 12-31-23

DEBIT	CREDIT
Inventory beginning of year.....	Inventory end of year.....
\$154,965	\$171,649
Purchases.....	Cost of sales.....
272,745	256,061
Cost of sales.....	Sales (net).....
\$256,061	\$303,155
Interest and discount pd..	Cash discount.....
8,095	2,369
Officers' salaries.....	Tax rebate.....
7,540	900
Income tax.....	Other income.....
442	602
Operating expense.....	
28,479	
Bad debts.....	
1,926	
Net profit.....	
4,482	
\$307,026	\$307,026

company's lack of credit is seen in the item of cash discount on the credit side of the income account. This item amounts to \$2369, or less than one per cent of the year's purchases.

The statements of the 'B' Wholesale Dry Goods Company, on page 319, indicate that receivables are heavy in proportion to merchandise. Observe the notes receivable which, in the main, no doubt represent closed-out accounts.

There is a large item of real estate and farm equipment in the

statement. It was doubtless accumulated through closing out secured country accounts. It is, of course, a very undesirable asset in which to have invested the capital of a wholesale dry goods house. At this point it may be well to note that the company has more than \$3,000,000 of its \$7,650,000 of assets in the form of fixed and intangible assets.

Total current indebtedness and total indebtedness are too heavy in proportion to net worth, particularly since so large a part of the

BALANCE SHEET OF THE 'B' WHOLESALE DRY GOODS COMPANY
AS OF 12-31

	1921	1922
Cash.....	\$202,882	\$363,487
Accounts receivable.....	1,820,247	1,698,420
Notes receivable.....	842,580	606,619
Merchandise inventory.....	2,199,413	1,943,849
QUICK ASSETS.....	<u>\$5,065,122</u>	<u>\$4,612,375</u>
Personal accounts.....	\$143,332	\$153,790
Real estate and farm equipment.....	352,049	373,420
Securities owned.....	73,311	66,329
Real estate and buildings.....	987,882	934,845
Fixtures, machinery, etc.....	110,085	123,877
Bond discount.....	114,556	162,608
Goodwill.....	1,125,000	1,125,000
Miscellaneous assets.....	82,990	100,618
TOTAL ASSETS.....	<u>\$8,054,327</u>	<u>\$7,652,862</u>
Due banks and brokers.....	\$1,983,547	\$1,451,855
Accounts payable.....	923,382	580,811
Accrued items.....	90,818	78,355
Other current liabilities.....	57,727	49,838
CURRENT LIABILITIES.....	<u>\$3,055,474</u>	<u>\$2,160,859</u>
7 per cent bonds (serial).....	574,492	1,293,915
Capital stock.....	5,017,500	5,017,500
TOTAL LIABILITIES.....	<u>\$8,647,466</u>	<u>\$8,472,274</u>
Deduct IMPAIRMENT OF CAPITAL.....	593,139	819,412
	<u>\$8,054,327</u>	<u>\$7,652,862</u>

net worth is invested in fixed and intangible assets and since so large a part of the quick assets is made up of receivables of more or less indeterminate value.

A comparison of the statements reveals the following:

(a) Quick assets decreased \$450,000 — largely accounted for by a reduction in receivables. This is desirable, although the reduction, in part at least, probably represents charged-off accounts.

(b) Current liabilities decreased nearly \$900,000, or twice as much as the decrease in quick assets. The difference of \$450,000 and the decrease in net worth during the year of \$226,000 may be accounted for by the increase of more than \$700,000 in the bonded indebtedness. Thus the company has funded a very large part of its current debt and built up its current ratio to better than two to one. This may at times be a very desirable thing to do when, through losses, a company has so weakened its current position that its credit is threatened and its source of fresh supplies of working capital dammed up. It is noteworthy that the increase in bonded debt bore heavily on the company. Besides having to pay a coupon rate of seven per cent for the money, the company had to stand a discount charge of \$48,000. Attention is called to the fact that the aggregate of outstanding bonds is in excess of the balance sheet value of the buildings and furniture and fixtures. It might therefore be pertinent to inquire as to just what assets are included under the mortgage securing the bonds.

By way of summary, it may be said that the company is obviously in a very uncomfortable situation, due mainly to the heavy receivables, large indebtedness, and heavy concentration of capital in fixed assets. A poor crop in 1923 would very seriously aggravate the company's troubles.

Wholesale wearing apparel (wholesale millinery): The 'A' Wholesale Millinery Company, whose statements appear below, began business about the middle of 1921. It is not surprising, in the light of conditions prevailing at that time, that the company finished the year with a substantial impairment of capital. The encouraging fact, however, is that in both 1922 and 1923 the impairment was materially reduced. The management would appear to have a firm grasp on the situation with ability to put the company ultimately on a dividend basis.

The statements of the company show clearly the seasonal character of the business. The November statements in 1921 and 1922 show liabilities to be small in amount, as would be expected. In comparison with the statement for September, 1923, receivables and inventory, as well as indebtedness, are low. This, of course, is a normal showing, because the September 1, 1923 statement was taken off

BALANCE SHEET OF THE 'A' WHOLESALE MILLINERY COMPANY

	11-30-21	11-30-22	9-1-23
Cash.....	\$11,855	\$2,650	\$2,946
Accounts receivable.....	19,675	31,470	50,643
Bills receivable.....	559	1,711	2,012
Merchandise.....	13,320	31,248	54,801
Other quick assets.....	768		
QUICK ASSETS.....	\$46,177	\$67,079	\$110,402
Furniture and fixtures.....	15,801	17,138	16,705
TOTAL ASSETS.....	\$61,978	\$84,217	\$127,107
Bills payable (banks).....		\$15,000	\$40,000
Accounts payable.....	\$956		12,477
CURRENT LIABILITIES.....	\$956	\$15,000	\$52,477
Net worth.....	61,022	69,217	74,630
Capital stock.....	80,000	80,000	80,000
DEFICIT.....	\$18,978	\$10,783	\$5,370

in the midst of the busy fall season when the company would normally be somewhat extended and in debt. It will be observed that in the 1923 statement debts are very heavy in proportion to net worth. Within a few months, fall liquidation will enable the company to effect a heavy reduction of its liabilities. With a sound and capable management at the head of the business, the seasonally heavy proportion of debt to worth in the 1923 statement should occasion creditors no alarm.

Wholesale wearing apparel (wholesale shoes): The statements of the 'A' Wholesale Shoe Company call for no analysis because they are eminently satisfactory. The cash shown in the 1923 statement is sufficient to pay off the nominal amount of liabilities. Note the large surplus. During the year ended November 30, 1923, the company carried forward \$60,000 to surplus, and probably paid substantial dividends in addition. Notes receivable are properly almost entirely absent from the statement. In short, the company is simply a prime risk and would easily be entitled to bank lines of \$300,000 to take care of its seasonal requirements, provided its normal volume of business would warrant its borrowing in that amount in addition to its own ample resources.

BALANCE SHEET OF THE 'A' WHOLESALE SHOE COMPANY

	11-30-22	11-30-23
Cash.....	\$35,626	\$37,543
Accounts receivable.....	239,359	244,186
Notes receivable.....	6,008	1,886
Merchandise on hand.....	252,114	301,286
QUICK ASSETS.....	\$533,107	\$584,901
Furniture and fixtures.....	12,308	10,445
TOTAL ASSETS.....	\$545,415	\$595,346
Notes payable to banks.....	\$25,000	
Accounts payable.....	1,108	5,742
Accruals, taxes, etc.....	12,225	21,700
CURRENT LIABILITIES.....	\$38,333	\$27,442
Capital stock.....	400,000	400,000
Surplus.....	107,082	167,904
TOTAL LIABILITIES.....	\$545,415	\$595,346

Wholesale wearing apparel (wholesale men's hats): The statement of the 'A' Wholesale Hat Company is very satisfactory as may be seen from the following facts:

(a) Net profit for the year amounted to more than \$79,000 or 79 per cent on the capital stock or 28 per cent on the combined capital stock and surplus.

(b) The company should be in a very liquid condition at statement date, and it meets our expectations in that regard. Based on the end of year inventory shown on the statement, merchandise turned more than four times during the year. But the inventory figure in the statement is abnormally low. It is therefore probable that if turn-over were calculated on the average annual inventory, it would amount to about three times a year, which is considered normal. The inventory on hand at statement date would last the company less than three months on the basis of a volume of business as large as that of 1923.

(c) Receivables are properly all in the form of accounts, as notes and acceptances are ordinarily used only to take up delinquent accounts. Receivables on the books at statement date represent a little more than two months' sales and would therefore not appear to be too high when considered in the light of the customary long terms prevailing in the business. The credit and collection policies are satisfactory.

BALANCE SHEET OF THE 'A' WHOLESALE HAT COMPANY
AS OF 12-31-23

Cash.....	\$6,745	Notes payable.....	\$25,000
Accounts receivable.....	152,929	Accounts payable.....	63,675
Mdse. inventory.....	139,270		
U.S. Gov't. obligations...	60,000		
<hr/>		<hr/>	
QUICK ASSETS.....	\$358,944	CURRENT LIABILITIES.	\$88,675
Furniture and fixtures....	7,571	Capital stock.....	100,000
		Surplus.....	177,840
<hr/>		<hr/>	
TOTAL ASSETS.....	\$366,515	TOTAL LIABILITIES....	\$366,515

INCOME ACCOUNT OF THE 'A' WHOLESALE HAT COMPANY FOR THE
YEAR ENDED 12-31-23

Inventory 1-1-23.....	\$233,550
Purchases during the year.....	480,593
Freight and drayage.....	14,518
<hr/>	
TOTAL.....	\$728,661
<hr/>	
Deduct Inventory 12-31-23.....	139,270
<hr/>	
COST OF SALES.....	\$589,391

DEBIT

Cost of sales.....	\$589,391
Selling expense.....	85,364
Office and store expense..	32,156
General expense.....	36,558
Income tax for 1922.....	20,073
Depreciation.....	841
Bad accounts.....	1,454
Discounts allowed.....	9,075
Donations.....	1,372
NET PROFIT.....	79,371
<hr/>	

TOTAL.....\$855,655

CREDIT

Net sales.....	\$806,918
Discounts received....	36,349
Other income.....	12,236
Int. on L.L.B.'s.....	152

TOTAL.....\$855,655

(d) Cash and Government securities exceed 75 per cent of the company's total liabilities.

(e) The current ratio is higher than four to one. At statement date, however, it should be high. As soon as the company begins borrowing for the fall of 1924, the ratio will go down, and perhaps at the time the peak indebtedness is reached, the ratio may fall to two to one or even lower. But had this company had a ratio of only two to one as of December 31, 1923, we should have sought an explanation. The seasonal character and general nature of its business would

ordinarily bring about a fairly high ratio as of the end of the year.

(f) Purchases during the year amounted to \$495,000 (including freight and drayage) as against sales at cost of \$589,000. Thus the purchases were kept well within what was required to meet the demands of the trade. This practice is ordinarily to be commended, for a company which follows it will seldom be charged with speculation in inventory.

(g) The discounts taken during the year amounted to more than \$36,000, a sum equal to nearly 8 per cent of the total purchases for the year. These discounts were the equivalent of more than 50 per cent of the company's net profit.

(h) Gross profit in 1923 was only 27 per cent of sales, a percentage somewhat below normal.

The comparative statements of the 'B' Wholesale Hat Company below and on page 325, will indicate some of the things which a whole-

**BALANCE SHEET OF THE 'B' WHOLESALE HAT COMPANY AS OF THE
SEVERAL DATES GIVEN BELOW**

	12-31-19	12-31-20	12-31-21
Cash.....	\$3,730	\$2,642	\$3,026
Accounts receivable.....	122,394	367,483	60,003
Notes receivable.....	761	8,388	9,084
Merchandise inventory.....	156,177	418,404	105,936
QUICK ASSETS.....	\$283,062	\$796,917	\$178,049
Real estate and bldg.....	\$49,869	\$49,869	\$100,000
Furniture and fixtures.....	3,991	4,459	4,043
Deferred and other.....	2,359	13,957	1,950
TOTAL ASSETS.....	\$339,281	\$865,202	\$284,042
Notes payable, banks.....	\$29,376	\$284,000	\$110,350
Trade acceptances.....		64,578	35,100
Bills payable, mdse.....			1,156
Accounts payable.....	102,505	225,871	
Accrued accounts.....	20,149	21,846	6,189
CURRENT LIABILITIES.....	\$152,030	\$596,295	\$152,795
Mortgage on building.....	\$25,000	\$40,000	\$40,000
Depreciation reserves.....	1,629	2,702	3,335
Miscellaneous.....		51	5
Capital stock.....	75,000	75,000	75,000
Surplus.....	85,622	151,154	12,907
TOTAL LIABILITIES.....	\$339,281	\$865,202	\$284,042

INCOME ACCOUNT OF THE 'B' WHOLESALE HAT COMPANY FOR THE
YEAR ENDED 12-31-20

Inventory 12-31-19.....	\$156,158
Purchases during the year.....	812,319
Freight and drayage.....	15,351
TOTAL.....	\$983,828

Deduct inventory 12-31-20.....	418,404
COST OF SALES.....	\$565,424

DEBIT	CREDIT
Cost of sales.....	Net sales.....
General, administrative, and selling expenses. . .	Discounts taken.....
Bad debts.....	Other income.....
Interest paid.....	
Discounts allowed.....	
Net profits.....	
TOTAL.....	TOTAL.....

sale hat company (or any other kind of company) should *not* do if it is to avoid bankruptcy.

The 1919 statement makes the best showing of the three, but it is far from satisfactory. Accounts payable appear to be high, indicating that the business is probably not taking its discounts, and current indebtedness is too heavy in proportion to worth, when the fact is considered that at statement date, the concern should be in a liquid condition. The 1920 statement shows a remarkable expansion in the business when compared with the 1919 statement. Both inventory and receivables show an enormous increase. Current indebtedness is nearly four times what it was in 1919 and is more than two and one half times net worth. It would seem that this company thought the boom times of 1919 were to last indefinitely, and accordingly went in debt as far as possible in order to provide for a great increase in business which never materialized. As a result, the management's mistake in judgment left the company stranded at the end of 1920 with perhaps the largest inventory and outstandings in its history — and this, on the threshold of 1921 with its low prices and severe general depression in business. We might dwell for another moment upon the showing made by the 1920 statement, and for this purpose we turn to the profit and loss account. We shall find it in interesting contrast with that of the 'A' company. It is true that

the two accounts close or cover different periods of operation and thus are not strictly comparable, but this factor will not destroy the usefulness of the comparison for our purpose, which is simply to apply the principles of statement analysis in the light of what we have learned about the trade practices and characteristics of the wholesale trade in men's hats.

Comparing merchandise with sales at cost, we find enough stock on hand to last the 'B' company nearly nine months as compared to only three months for the 'A' company. Receivables in the case of the 'B' company represent nearly six months' sales, and thus indicate extremely poor collections, whereas in the case of the 'A' company they represent only about two months' sales. The mistake of the management of the 'B' company in assuming that the prosperity of 1919 would last through 1920 is obvious when we consider that at the beginning of 1920 the company had an inventory of only \$156,158 to which it added over \$827,000 through purchases (including freight and drayage), *but managed to sell during the year goods to the value of only \$565,000*. The company was thus left with nearly \$420,000 of stock on hand at the end of the year, a stock almost three times the one on hand at the beginning of the year. On the other hand, the profit and loss account of the 'A' company shows that purchases during the year did not even equal the cost of the goods sold.

The 'B' company has accounts payable equal to more than three months' purchases, far too many in the light of our knowledge of the terms granted by manufacturers and the liberal discount offered by them. The concern sometime during the year reached the end of its bank credit and found itself unable to take its discounts, even allowing some of its accounts to run past due. For it is inconceivable that the large amount of accounts payable could represent only fairly recent purchases not yet due for discount. The company probably placed very few orders after the middle of 1920. That a number of the accounts payable became past due during the year is borne out by the presence of the large item of trade acceptances amounting to \$64,578. These acceptances probably represent the closing out by the company of some of its past-due accounts payable, for we know that trade acceptances are not customarily used for any other purpose in this line of business.

The 'B' company, after allowing for certain surplus adjustments, mainly deductions for 1919 income tax, which are not shown in the profit and loss account, had a net profit of approximately \$70,000. The profit appears to exist mainly in the large items of receivables and inventory as shown on the statement. In other words, the profit is merely a paper profit, and we shall see how true this observation is when we consider the 1921 statement.

Deflation was not long in making itself felt in 1921 as witness the great decreases in receivables and merchandise. That a very great portion of these decreases was brought about through charging down those assets is clear from the heavy reduction in net worth. The paper profit has disappeared! Net worth shows a loss during the year of \$139,000, and if we add to this figure some \$51,000 representing an appraisal increase in the company's real estate and building, we find that the actual loss during the year was \$190,000, or practically 85 per cent of the net worth as shown at the end of 1920. And this is putting the very best interpretation on the statement by assuming that the entire reduction in current liabilities was brought about by a corresponding liquidation of quick assets. This may not have been, and probably was not, the case. It is altogether likely, in view of the general condition of the company and in view of the stagnated business conditions existing during 1921, that the company made a composition agreement with its creditors. Observe the entire absence of accounts payable in the 1921 statement. To the extent that the reduction in current liabilities may be due to such an agreement would the reduction in quick assets represent an additional writing down of merchandise and receivables.

And then, in spite of the heavy losses taken by the company (and possibly also by its creditors), the end of 1921 found it still in an almost hopeless condition. Net working capital amounted to only a little more than \$25,000, and current liabilities amounted to nearly twice the net worth, including with net worth the \$51,000 appraisal write-up of real estate and building. Current liabilities amounted to more than four times and total liabilities to more than five times net worth, if the \$51,000 write-up be excluded from net worth. It is not surprising that the company was petitioned into bankruptcy in 1922.

RETAIL

The automobile dealer: Note that on the balance sheet of the 'B' Automobile Company (page 328) the receivables are clearly segregated as to current and past due and as to receivables discounted and receivables still in the files of the company. It will be recalled, in this connection, that in discussing this line of business it was pointed out that if a company showed any considerable amount of receivables on the statement, the inference might be that they were probably of doubtful quality and not acceptable to a finance company. That inference could not be drawn in the present case, because the statement shows all the receivables whether discounted or not — those discounted being offset by a contra item among the current liabilities. This method of handling receivables is to be preferred over the more

BALANCE SHEET OF THE 'B' AUTOMOBILE COMPANY AS OF 12-31-23

ASSETS

QUICK ASSETS:

Cash on hand.....		\$360	
Notes receivable (not past due).....	\$6,085		
Notes receivable (past due).....	5,559		
Notes receivable discounted.....	24,345		
Accounts receivable.....	13,202		
Accounts receivable (sundry).....	760		
Accounts receivable (stockholders)....	<u>1,900</u>		
Total.....	51,851		
Less reserve for bad debts.....	4,879	46,972	
*Inventory.....		31,967	
Dealer's deposit.....		1,000	
Other deposits.....		<u>20</u>	\$80,319

FIXED ASSETS:

Real estate, lots.....		13,620	
Furniture and fixtures.....	1,873		
Shop tools and equipment.....	<u>3,092</u>		
Total.....	4,965		
Less reserve for depreciation.....	<u>3,949</u>	<u>1,016</u>	14,636

DEFERRED CHARGES:

Unearned interest.....		724	
Unexpired insurance.....		<u>485</u>	1,209
TOTAL ASSETS.....			\$96,164

LIABILITIES

QUICK LIABILITIES:

Bank overdraft.....	\$1,847		
Notes payable.....	13,000		
Accounts payable.....	3,051		
Notes receivable discounted (contra)..	24,345		
Accrued items.....	<u>1,796</u>		\$44,039

NET WORTH:

Capital stock.....	50,000		
Surplus.....	<u>2,125</u>		52,125
TOTAL LIABILITIES.....			\$96,164

* Composed of:

New cars.....	\$11,986
Used cars.....	2,670
Parts.....	13,395
Accessories, oils, tires.....	<u>3,916</u>
	\$31,967

INCOME ACCOUNT OF THE 'B' AUTOMOBILE COMPANY FOR THE YEAR
ENDING 12-31-23

Gross sales.....		\$268,645
Inventory Beginning of Period.....	\$32,569	
Purchases.....	218,739	
	<u>251,308</u>	
Less inventory end of period.....	31,967	
Cost of sales.....		<u>219,341</u>
GROSS PROFIT.....		\$49,304
DEDUCTIONS:		
Sales expense.....	\$18,521	
Service expense.....	15,337	
Administrative expense.....	17,782	
	<u></u>	
Total expense.....		<u>51,640</u>
NET LOSS ON SALES.....		\$2,336
OTHER INCOME:		
Cash discounts taken.....	\$1,120	
Interest earned.....	2,047	
Miscellaneous income.....	158	
	<u></u>	
		\$3,325
OTHER DEDUCTIONS:		
Interest on notes payable.....	\$740	
Bad debts charged off.....	6,904	
Loss in inventory.....	58	
	<u>7,702</u>	
		<u>4,377</u>
NET LOSS FOR YEAR.....		\$6,713

customary practice of deducting from the assets those receivables which have been discounted and showing no liability for receivables discounted. The proceeds of receivables discounted represent borrowed money almost in the same sense as if the company had obtained accommodation from the bank or finance company on its own note, pledging its receivables as collateral. Moreover, if the receivables were endorsed with recourse, the bank or finance company, in any case where collection could not be had, would charge the note to the account of the dealer.

Cash is very low. In fact, the company is overdrawn with its bank, and this, too, in the face of over \$1000 of accrued liabilities.

Accounts receivable amounting to about \$14,000 should be explained. As a general proposition, such receivables as appear on the statement of an automobile dealer should be in the form of notes representing sales of cars. Parts and repairs are ordinarily handled on a cash basis. It is not clear, therefore, what the item represents.

Inventory amounts to nearly \$32,000, of which less than one half is made up of new cars, the remainder comprising accessories, used cars and parts — mainly the latter. A company should have as little of its capital invested in used cars and parts as is consistent with the proper and profitable conduct of its business. Since this company does an annual business of about \$270,000, however, and since it handles a low-priced, popular, and quick-selling car, the inventory as made up on the statement is not out of line. In fact, as of statement date, the inventory of new cars should be at about its lowest point, because December is a between-seasons month.

Attention has already been called to the bank overdraft. Total current liabilities amount to \$44,000, or only \$8000 less than the net worth of the company. Apparently, too great a dependence upon creditors for operating capital has resulted from the policies of the management. The company is undercapitalized. It is pertinent to inquire at this point why the company has nearly \$14,000 invested in lots. This money might be placed to better advantage in the working capital of the business. With reference to the proportion of the indebtedness to the net worth, as shown by the statement, it may be urged that the bulk of the receivables are secured and are therefore more desirable as an asset than the unsecured accounts of the ordinary business. There is considerable merit in this contention. On the other hand, the risks sold by the dealer are often not of the highest type, and the security behind the receivables is subject to very heavy depreciation within a very short time. The fact that receivables are not of an unusually high type in the present instance is indicated by the fact that during 1923 the company charged off

nearly \$7000 for bad debts. This charge, amounting to nearly three per cent of sales was in excess of the total deficit shown as a result of the year's operations. While on the topic of the company's indebtedness, it may be remarked that as of the date of the statement, the company should be in about its most liquid condition. Within a short time borrowings will be on the increase in order to take care of the spring inventory and the spring and summer trade.

THE INCOME ACCOUNT (see page 329)

On the basis of sales at cost in the amount of \$219,341, the company had an unusually satisfactory turnover of inventory — over six times when calculated on the end of year inventory of \$31,967. This high rate of turnover is accounted for by the fact that the company, as previously stated, handles a low-priced, popular automobile. It is accounted for also, to some extent, by the fact that the inventory figure used probably represents the inventory at its lowest point.

Gross profit is normal at approximately 19 per cent.

Owing to heavy expenses, however, the company suffered an operating loss of more than \$2000. Sales commissions on the type of car handled should run between five and six per cent of sales. Sales expense in this case amounts to about seven per cent. Service and administrative expenses also appear to be out of proportion to the volume of business. The company should concentrate its effort on reducing expenses.

Losses from bad debts brought the total loss from the year's operations up to nearly \$7000.

Receivables outstanding represent less than two months' sales, and this would indicate that the company is either selling a great deal for cash, or is receiving very substantial cash-down payments, or is granting terms on its installment sales which are considerably less than twelve months in length on the average.

SUMMARY

The company is operating too largely on borrowed capital. This condition cannot be permanently alleviated until operations are conducted on a profitable basis. The paper would not appear to be attractive unless supported by substantial endorsements or guaranties.

On page 332 appears the financial statement of the 'A' Automobile Company which is in better condition than the company just discussed. The statement is apparently very satisfactory. The current ratio is high and the proportion of debt to worth is low. There are several points of importance, however, that the banker might

BALANCE SHEET OF THE 'A' AUTOMOBILE COMPANY AS OF 12-31-23

ASSETS:

Cash.....	\$12,423
Accounts receivable.....	23,469
Bills receivable.....	58,248
Autos, parts, etc.....	107,745

TOTAL QUICK ASSETS.....\$201,885

Fixed and slow assets..... 16,482

TOTAL ASSETS.....\$218,367

LIABILITIES:

Bills payable (bank).....	\$55,000
Accounts payable.....	1,744
Other current liabilities.....	1,050

TOTAL CURRENT LIABILITIES.....\$57,794

Capital stock..... 30,000

Surplus..... 130,573

TOTAL LIABILITIES.....\$218,367

raise before making a commitment as to the line of credit to be granted:

(a) Taking into consideration the fact that notes receivable appear to be low when compared with inventory, the banker might infer that the company is discounting the bulk of its receivables. But there is nothing in the statement to bear out the inference. Therefore, the banker should inquire whether the company is using the facility of the finance company, and, if so, why the contingent liability (if any) is not shown.

(b) The presence of \$23,469 of accounts receivable should be explained, for, as a general rule, an automobile dealer should not show a substantial investment in accounts receivable.

(c) The inventory should be detailed as to new cars, used cars, and parts.

(d) The banker might ask whether the surplus, which is exceptionally large in comparison with capital stock, has arisen entirely from earnings. It would perhaps be desirable from the standpoint of creditors that the company declare a stock dividend, thus carrying a part of the surplus to the capital stock account. This would be an assurance that it would be more or less permanently retained in the business and not disseminated in the form of dividends.

The furniture and musical instruments trades (furniture): The statement of the 'A' Retail Furniture Company contains a notation to the effect that the company sells for cash and on 30 to 60 days' time and that it discounts its bills. If this notation is true, some explanation should be given of the presence of \$20,000 of bills receivable. The probability is that some installment business is done and that the bills receivable represent installment notes. Receivables are too heavy in proportion to sales, if the information as to terms of sale is correct; for accounts receivable themselves amount to nearly four months' sales, whereas, when the fact is considered that the business is supposed to handle a substantial volume on a cash and 30-day basis, receivables should be much lower.

Attention is called to the fact that the current indebtedness is rather heavy in proportion to the net worth when the size of the business is considered. The bulk of the company's current obligations are owing to trade creditors to whom it has given notes in payment for merchandise. In addition to the current liabilities, the company owes \$10,000 to its officers and \$15,000 on a building which it has either bought or built. The total indebtedness, therefore, is nearly equal to the net worth.

The income account shows that a profit resulted from the operations in 1923. The profit during the year amounted to \$2700 but would have been a loss of \$4200, if the company had not had rent income and 'other income' aggregating \$6900. The reason for this poor showing is probably to be found in the fact that gross profit amounted to only 35 per cent of sales as against a normal 50 per cent. The company is either not buying right or, through force of competition or otherwise, it is not obtaining a high enough price for its goods. The company might also consider the possibility of curtailing operating expense relative to volume, either by an actual paring of expense on the basis of the present volume of business, or by increasing volume on the basis of present expense. Operating expenses amount to about 35 per cent of sales, but it is stated by dealers that a percentage of 30 per cent is not considered unduly heavy.

The company indicates that it takes the discounts offered on purchases. It seems clear, however, that it does not take its discounts, or at least that it takes only a negligible proportion of them, because the income from cash discounts is shown to have been in 1923 only a little more than \$500, whereas purchases amounted to nearly \$114,000. Accounts payable on the books amount to about four months' purchases; whereas, if the company were even paying its accounts promptly, they should not amount to more than from two to three months' purchases. The discount granted by manufacturers ranges

BALANCE SHEET OF THE 'A' RETAIL FURNITURE COMPANY
AS OF 12-31-23

Cash.....	\$2,494	Bills payable (banks)...	\$15,800
Accounts receivable.....	56,430	Bills payable (mdse.)...	37,896
Bills receivable.....	20,067	Accrued items.....	1,939
Merchandise.....	37,446		
			<hr/>
QUICK ASSETS.....	\$116,437	CURRENT LIABILITIES	\$55,635
Building and other fixed assets.....	53,200		
		Due officers.....	10,000
		Mortgage on building..	15,300
		Capital stock.....	83,500
		Surplus.....	5,202
			<hr/>
TOTAL ASSETS.....	\$169,637	TOTAL LIABILITIES ..	\$169,637

INCOME ACCOUNT OF THE 'A' RETAIL FURNITURE COMPANY
FOR THE YEAR ENDED 12-31-23

Inventory 1-1-23.....	\$38,286		
Purchases in 1923.....	113,607		
			<hr/>
			\$151,893
Inventory 12-31-23.....	37,446		
			<hr/>
COST OF SALES.....	\$114,447		
Cost of sales.....	\$114,447	Net sales.....	\$175,913
Interest and discount....	5,163	Cash discounts.....	521
Officers' salaries.....	5,000	Rent income.....	4,200
Operating expense.....	52,135	Other income.....	2,739
Depreciation.....	3,928		
Profit.....	2,700		
			<hr/>
TOTAL	\$183,374	TOTAL	\$183,374

• We sell for cash and on 30-60 days' time. We discount all bills.

from 2 to 10 per cent. On the assumption that the average is 5 per cent, this company would have earned an additional profit of about \$5000 by taking the discount on all purchases.

The company is undercapitalized, and the supplementary information given on its statement cannot be reconciled with the actual showing of the statement.

Attention is now called to the statements of the 'B' Retail Furniture Company. The three points listed below are brought out by the statements and are characteristic of an installment house doing a normal, profitable business.

(a) The receivables, all represented by installment accounts, are between three and four times the amount of merchandise carried.

(b) The business relies largely upon the credit extended by its trade creditors. This is seen in the large amount of accounts in comparison with the other current liabilities.

(c) The current ratio is above three to one. A relatively high ratio is expected in an installment business owing to the fact that the principal quick asset is receivables of a long average maturity which must be large in amount in order that the current income from them, to-

BALANCE SHEET OF THE 'B' RETAIL FURNITURE COMPANY

	12-31-22	12-31-23
Cash.....	\$3,359	\$3,099
Accounts receivable.....	171,829	214,057
Inventory.....	52,281	57,641
Liberty Loan Bonds.....	5,235	5,345
QUICK ASSETS.....	\$232,704	\$280,142
Fixed Assets.....	6,048	2,878
TOTAL ASSETS.....	\$238,752	\$283,020
Bills payable (banks).....	\$12,500	\$20,600
Bills payable (mdse.).....	2,100	
Accounts payable.....	54,174	73,387
Accrued items.....	3,045	3,197
Other current liabilities.....	3,197	
CURRENT LIABILITIES.....	\$75,016	\$97,184
Capital stock.....	\$100,000	\$100,000
Surplus.....	63,736	85,836
TOTAL LIABILITIES.....	\$238,752	\$283,020

gether with such cash income as may be derived from sales, may be sufficient to care for maturities among the current liabilities.

The comparison of the two statements would indicate that the business is operating on a profitable basis. Net worth shows an increase of approximately \$22,000. On the whole, the company seems to be functioning normally and appears to be a desirable risk for a reasonable line of credit.

The furniture and musical instruments trades (musical instruments):
 Statements of the 'A' Piano Company are set out below. The increase in quick assets of \$33,000 from 1921 to 1922 is represented mainly by additions to the merchandise on hand. The increase in quick assets is almost exactly offset by a corresponding increase in current liabilities. The reduction in net worth of \$6500 seems to have resulted from a decrease of the valuations placed upon leasehold improvements and furniture and fixtures.

BALANCE SHEET OF THE 'A' PIANO COMPANY

	12-31-21	12-31-22
Cash.....	\$5,999	\$7,899
Accounts receivable.....	8,021	10,071
Notes receivable.....	143,317	143,883
Merchandise.....	102,024	131,145
QUICK ASSETS.....	\$259,361	\$292,998
Leasehold improvements.....	24,557	22,221
Furniture and fixtures.....	28,748	25,364
TOTAL ASSETS.....	\$312,666	\$340,583
Notes payable (bank).....	\$39,500	\$45,000
Notes payable (merchandise).....	67,223	79,780
Accounts payable.....	10,509	27,654
Accrued accounts.....	1,005	183
CURRENT LIABILITIES.....	\$118,237	\$152,617
Net worth.....	194,429	187,966
TOTAL LIABILITIES.....	\$312,666	\$340,583
SALES.....	\$442,643	\$530,981

Although the increase in current debt resulted in a similar increase in quick assets, the proportion of indebtedness to net worth was raised thereby from 60 to 80 per cent and the current ratio was lowered from 2.2 to 1 to 1.8 to 1. A proportion of debt to worth of 80 per cent in the case of a company as small as this one is too heavy and indicates a condition of undercapitalization. The same condition is also indicated by the current ratio.

If we assume a gross profit of 45 per cent and deduct that amount from sales, we find that inventory turned in 1921 two and one half times and in 1922 two and one fourth times. The rate is too low and is probably one of the company's troubles. It is not apparent why

turnover should have been higher in 1921 than in 1922, in the light of general trade conditions existing in those respective years.

Receivables amount to only about four months' sales in the 1921 statement and to only three and one half months' sales in the 1922 statement. They appear to be low in both instances, for a business of this kind, of which long terms of sale are characteristic. Possibly the company has sold some of its receivables, but if this has been done, the contingent liability should be set out on the statement.

It will be observed that receivables are principally in the form of notes and that the company has given its own notes for a considerable part of the merchandise now on hand. Both of these facts we understand to be characteristic of the music business.

On the whole, the company is not a particularly attractive credit risk on the basis of the 1922 statement. Possibly some additional information along the lines indicated in this analysis might throw a little different light on the situation, however.

BALANCE SHEET OF THE 'B' PIANO COMPANY

	12-31-21	6-30-22
Cash.....	\$15,845	\$725
Accounts receivable.....	6,184	9,421
Bills receivable.....	245,113	330,453
Merchandise.....	107,646	133,822
Other quick assets.....	15,363	8,551
TOTAL QUICK ASSETS.....	\$390,151	\$482,972
Goodwill.....	75,000	75,000
Receivables past due.....	27,595	32,500
Other assets.....	25,713	25,743
TOTAL ASSETS.....	\$518,459	\$616,215
Bills payable (bank).....	\$65,355	\$67,958
Bills payable (merchandise).....	33,774	62,491
Notes due discount companies.....	85,495	132,493
Accounts payable.....	43,339	63,207
Accrued items.....	10,516	784
Other current liabilities.....		
TOTAL CURRENT LIABILITIES.....	\$238,479	\$326,933
Preferred stock.....	123,000	123,000
Common stock.....	116,500	116,500
Surplus.....	40,480	49,782
TOTAL LIABILITIES.....	\$518,459	\$616,215

Comparative statements of the 'B' Piano Company are given on page 337. As would be expected, receivables consist almost entirely of notes and exceed merchandise on hand by a substantial amount in both statements.

Note the various forms in which the company has obtained credit. It has notes due to banks, trade creditors, and discount companies. It also owes trade creditors on open account. More than a third of the total current liabilities in the 1922 statement are made up of notes due discount companies, indicating that the company is leaning very heavily upon finance companies for working capital. This form of borrowing is costly and it is probable that the company has pledged or sold a very large part of its most desirable receivables.

Even if we include the \$75,000 of goodwill as making up part of the net worth, we still find the company to be in a badly undercapitalized condition. In 1921 the current ratio was only 1.6 to 1 and in 1922 it was less than 1.5 to 1. Current indebtedness in 1921 was 85 per cent of net worth. In 1922 it was more than 113 per cent of net worth. In comparison with inventory, current debts were nearly two and one half times the stock on hand in 1922.

Receivables past due amount to about 10 per cent of total notes receivable in both statements.

The company would appear to be an unattractive credit risk.

The lumber trade: Statements of a manufacturing company, a wholesale distributor, and a retailer are presented.

I. THE 'A' LUMBER MANUFACTURING COMPANY

If we may judge from the fact that organization expense is carried among the assets, that the reserve for depreciation against the large investment in fixed assets is small, and that the company has only nominal current liabilities, owing nothing at all to banks, we may conclude that the 'A' Lumber Manufacturing Company has been in business for only a short time. This conclusion would seem to be borne out by the fact that, instead of having a surplus built up from operations, the company shows an initial loss which has resulted in an impairment of capital. This impairment would hardly exist in the absence of substantial current liabilities if it did not represent losses incident to getting the business under way. Consequently we have no indicated past record of this company to aid us in determining its desirability as a credit risk.

Quick assets are greatly in excess of current liabilities, as they should be in a newly organized company. Cash alone is more than adequate to retire all the current liabilities.

The principal point of interest about this statement is the \$700,000 of outstanding timber notes which are secured by a lien on the

BALANCE SHEET OF THE 'A' LUMBER MANUFACTURING COMPANY
AS OF 12-31-23

Cash.....	\$53,595
Accounts receivable.....	21,020
Lumber on hand.....	63,252
Logs and lumber in process.....	48,889
Supplies.....	2,566
QUICK ASSETS.....	\$189,322

Real estate.....	\$19,854
Standing timber.....	968,944
Saw mill, plant, railroad, etc.....	225,452
Prepaid insurance.....	4,377
Organization expense.....	1,590
TOTAL ASSETS.....	\$1,409,539

Accounts payable.....	\$501
Pay roll accrued.....	5,007
Interest accrued.....	10,825
Taxes accrued.....	8,400
CURRENT LIABILITIES.....	\$24,733

Timber notes:	
Due April 2, 1925.....	\$200,000
Due April 2, 1926.....	200,000
Due April 2, 1927.....	200,000
Due April 2, 1928.....	100,000
Reserve for depreciation.....	4,497
Capital stock.....	\$700,000
Less operating deficit.....	19,691
Net capital investment.....	680,309
TOTAL LIABILITIES.....	\$1,409,539

standing timber of the company valued in the statement at \$968,-944. These notes mature serially. There are two points concerning them which would be of interest to the banker. The company must do sufficient business to care for them as they mature, and in the second place the company should furnish information as to how it is protected against the risk of loss from fire and storms, for the notes are not only secured by a lien on the timber but also by the general financial responsibility of the company. When it is considered that the notes are in excess of the net worth, the possible consequences of a disastrous fire are apparent — especially if the timber holdings are within contiguous areas.

2. THE 'B' WHOLESALE LUMBER COMPANY

Observe the absence of merchandise inventory and the heavy amount of receivables. The reason for this is the fact that the wholesaler makes his purchases only against actual orders which he has booked; and, since shipments are made for the most part direct from mill to the user of the lumber (the retailer), the wholesaler does not carry the lumber in his assets at all. Receivables appear, instead.

The company has a good cash position. Current liabilities are small, both in proportion to quick assets and in proportion to net worth.

Surplus is small, but this seems to be due to the fact that the company pays out in dividends most of its net profits. Although surplus is shown to be only \$1417, earnings during the year available for credit to the surplus account amounted to nearly \$15,000.

BALANCE SHEET OF THE 'B' WHOLESALE LUMBER COMPANY
AS OF 11-30-23

Cash.....	\$34,774	Notes due banks.....	\$40,000
Receivables.....	185,143	Accounts payable.....	33,668
		Accruals.....	458
QUICK ASSETS.....	\$219,917	CURRENT LIABILITIES	\$74,126
Furniture, etc.....	5,626	Capital stock.....	150,000
		Surplus.....	1,417
TOTAL ASSETS.....	\$225,543	TOTAL LIABILITIES..	\$225,543

Net earnings for year after all deductions...\$14,713

3. THE 'C' RETAIL LUMBER COMPANY (see page 341)

The company is operating too largely on borrowed capital. Not only is current indebtedness in excess of merchandise inventory, but it is also heavy in proportion to net worth. In fact, current creditors have only \$37,000 less at stake in the business than the owners themselves.

The merchandise is not clear of debt, since the company owes trade creditors a sum equal to nearly 73 per cent of its book value.

We are informed that the company's usual terms of sale are 60 days. The open accounts are in excess of merchandise but are equal to only 69 days' sales, which in the light of the terms of sale, may be regarded as about normal. The notes receivable are comparatively small in amount and would indicate either that the company does not engage to any considerable extent in the financing of building

BALANCE SHEET OF THE 'C' RETAIL LUMBER COMPANY
AS OF 12-31-23

Cash on hand and in bank.....	\$9,082
Notes receivable.....	15,823
Accounts receivable.....	96,711
Merchandise inventory.....	88,526
Other quick assets.....	2,218

QUICK ASSETS.....\$212,360

Real estate and buildings.....	\$50,546
Autos and trucks.....	18,024
Furniture and fixtures.....	2,408
Prepaid interest and taxes.....	1,593

TOTAL ASSETS.....\$284,931

Notes payable to banks.....	\$45,000
Due on merchandise.....	64,412
Other current liabilities.....	2,206
Tax reserves.....	5,428

CURRENT LIABILITIES.....\$117,046

Reserve for depreciation.....	\$14,092
Capital stock.....	125,000
Surplus.....	28,793

TOTAL LIABILITIES.....\$284,931

INCOME ACCOUNT OF THE 'C' RETAIL LUMBER COMPANY FOR THE
YEAR ENDED 12-31-23

DEBIT

Merchandise beginning of year.....	\$74,400
Merchandise purchased..	415,922

TOTAL.....\$490,322

Cost of sales.....	\$401,796
Interest and discount paid	2,762
Salaries and wages.....	38,685
Income tax paid.....	3,286
Other operating expenses	21,781
Depreciation.....	8,085
Bad debts.....	3,639
Miscellaneous expenses..	1,969
NET PROFIT.....	21,559

TOTAL.....\$503,562

Buy and sell on sixty days' time.

CREDIT

Merchandise end of year.....	\$88,526
Cost of sales.....	401,796

TOTAL.....\$490,322

Sales.....	\$501,949
Interest on notes.....	1,073
Other income.....	540

TOTAL.....\$503,562

operations or that it has disposed of most of its notes taken in such operations. If the latter is the case, and if a large part of the sales were really made on a note basis; then it may be that the accounts are too heavy — i.e., too heavy in proportion to the sales actually made on an open account basis. We should inquire as to just what sales were made on an open account basis and what sales were made on a note basis.

Comparing inventory with sales at cost, we find that the turnover is better than four times a year, a very satisfactory rate. Gross profit is normal at approximately 20 per cent of sales. Net profit amounts to more than four per cent of sales or 14 per cent of the stockholders' investment in the business. This is fairly satisfactory, but it seems that in view of the exceptionally prosperous times the lumber trade has had during the past several years, net profit should be higher.

One reason for the fact that net profit is no higher is to be found in the practice of the company to forego its cash discounts. The discount offered by mills amounts to 2 per cent, and about 80 per cent of the retailers discount their bills. This company states that it buys on 60 days' time and the outstanding accounts payable bear out the statement, inasmuch as they amount to about 60 days' purchases. Instead of discounting, the company takes the full net terms period before remitting for its purchases. Two per cent on the purchases during the year in the amount of \$416,000 would have added considerably to the net profit, even though it might have been necessary to increase bank borrowings.

To summarize: The company is doing a satisfactory volume of business for the amount of its capital investment and for the amount of merchandise carried. Collections are apparently satisfactory also. Gross profit is normal. Net profit should be higher, however, and this could be brought about by reducing expenses (possibly), but particularly by taking discounts. The aggregate of the indebtedness is heavy in proportion to the net worth, however, and this may make banks reluctant to increase the company's lines, even though the proceeds were to be used to retire trade indebtedness. An improvement could be made in this direction if the company would leave its net earnings in the business.*

MISCELLANEOUS

The contractor (building): The statement of the 'A' Building Contracting Company appearing below would indicate that the company is in a fairly satisfactory condition. Particular attention is called to

* This was not done in 1923 because a footnote in the auditor's report from which the statement of the company appearing above was abstracted stated that a 15 per cent dividend was paid in that year.

the large amount of cash. The cash position is very strong. The company had no materials on hand at statement date, the bulk of the quick assets being made up of receivables. The accounts receivable no doubt represent estimates which have not yet been accepted by the representatives of the owners of the buildings under construction, although, owing to the importance of this item in the statement, specific inquiry regarding it should be made. The presence of nearly \$26,000 in bills receivable might give rise to question on the part of the banker. They may in large part simply represent mechanic's or material man's liens for work done and materials furnished. The current ratio is satisfactory, being in excess of 1.5 to 1. Observe that nothing is owing to banks but that a substantial amount is owing to trade creditors. Most of the accounts payable will no doubt be due within a comparatively short time, possibly within thirty days, and should be cared for out of collections from the receivables.

The investment in machinery and equipment appears to be somewhat disproportionate to the net worth of the concern. There is nothing on the statement to indicate to what extent such assets have been depreciated.

Subject to some inquiry into the nature and quality of the receivables, the statement is fairly satisfactory.

BALANCE SHEET OF THE 'A' CONTRACTING COMPANY AS OF 12-31-23

Cash.....	\$39,477	Accounts payable.....	\$62,256
Accounts receivable.....	87,734	Payroll.....	14,129
Notes receivable.....	25,900	Federal taxes.....	17,607
QUICK ASSETS.....	\$153,111	CURRENT LIABILITIES	\$93,992
Machinery and equipment	66,820	Capital.....	50,000
Real estate and building .	5,184	Surplus.....	81,123
TOTAL ASSETS.....	\$225,115	TOTAL LIABILITIES..	\$225,115

On page 344 appears the financial statement of a contractor who is unquestionably in an unsafe condition. Observe the small amount of cash in proportion to notes payable to banks and in proportion to total current liabilities. Observe also the large amount of receivables, upon the quality of which depends the solvency of this particular contractor. Accounts payable are very heavy. The total current liabilities are in excess of net worth by \$30,000. The business is operating too largely upon borrowed capital. This fact is seen also from the small margin of quick assets over current liabilities.

Before extending credit to this business, the banker should call for a schedule of the receivables showing when they are due and from

BALANCE SHEET OF J. J. B., BUILDING CONTRACTOR
AS OF 12-31-23

Cash.....	\$4,183	Bills payable.....	\$50,000
Accounts receivable.....	254,769	Bills payable (mdse.)..	24,714
Bills receivable.....	5,790	Accounts payable.....	164,432
Materials.....	15,958		
	<hr/>		<hr/>
QUICK ASSETS.....	\$280,700	CURRENT LIABILITIES	\$239,146
Stock in V. E. W. Invest- ment and Loan Com- pany.....	100,000	Real estate mortgage..	9,000
Machinery and equip- ment.....	41,742	Net worth.....	209,296
Real estate and building..	35,000		
	<hr/>		<hr/>
TOTAL ASSETS.....	\$457,442	TOTAL LIABILITIES..	\$457,442

whom they are due. A similar schedule of the outstanding payables should also be furnished. As a matter of fact, owing to the grossly undercapitalized condition of the concern, it is doubtful that the banker would care to interest himself in its affairs in any event.¹

The contractor (paving): Owing to the nature of the business, it is not surprising to find on the statement of the 'A' Paving Company (page 345) that receivables amount to more than four times the inventory on hand. The receivables are made up of paving certificates in the amount of \$83,700, accounts receivable of \$100,005, bills receivable of \$19,278 and work in progress of \$145,660.

Most of the current liabilities are in the form of payables to banks, which is normal. The current ratio is 1.6 to 1, which, owing to the nature of the quick assets, may be regarded as satisfactory, particularly since the company owns a large plant entirely free of debt and since the total indebtedness is only about 30 per cent of the paid-in capital stock and surplus.

This company makes its own paving composition, which accounts for the very heavy investment in plant. On the whole, the statement is satisfactory.

The statement following of the 'B' Paving Company is not satisfactory. The company is depending too heavily upon trade creditors and banks for its working capital. The creditors have \$45,000 more invested in the business than the owners, and this leaves out of consideration more than \$28,000 of deferred liabilities. Accounts payable appear to be unusually heavy relatively to the bank borrowings,

¹ The reader may be interested to know that this particular concern was declared insolvent and its affairs placed in the hands of a receiver within eight months after the statement above analyzed was rendered.

BALANCE SHEET OF THE 'A' PAVING COMPANY AS OF 12-31-22

Cash.....	\$31,427	Due to banks.....	\$190,226
Accounts receivable....	100,005	Accounts payable....	59,197
Bills receivable.....	19,278	Taxes, interest and	
Paving certificates.....	83,700	other accruals.....	37,537
Work in progress.....	145,660		
Material on hand.....	82,251		
QUICK ASSETS.....	\$462,321	CURRENT DEBTS..	\$286,960
Plant and real estate....	551,455	Capital stock.....	600,000
Equipment, etc.....	216,718	Surplus.....	389,603
Unissued stock.....	46,069		
Other assets.....			
TOTAL ASSETS.....	\$1,276,563	TOTAL LIABILITIES	\$1,276,563

BALANCE SHEET OF THE 'B' PAVING COMPANY AS OF 12-31-22

Cash	\$11,502	Due to banks.....	\$75,000
Accounts receivable.....	162,030	Accounts payable.....	135,206
Bills receivable.....	2,330		
Paving certificates.....	63,684		
Retained on contracts....	58,929		
State and city warrants..	34,898		
Work in progress.....	18,890		
QUICK ASSETS.....	\$352,263	CURRENT DEBTS....	\$210,206
Plant and real estate....	10,000	Deferred liabilities....	28,144
Equipment, etc.....	37,903	Capital stock.....	150,000
Other assets.....	3,579	Surplus.....	15,395
TOTAL ASSETS.....	\$403,745	TOTAL LIABILITIES..	\$403,745

and some inquiry might be made as to why this is the case. With the exception of about \$11,500 in cash, all the quick assets are made up of receivables of one form or another. Accounts receivable are relatively very large, and some detailed information concerning them might well be obtained.

The oil producer and refiner (the producer): In the statement of R. I. C. appearing on page 347, note the large amount of receivables. Inasmuch as the oil producer is paid usually every fifteen days for his production, the receivables should not represent more than fifteen days' runs at the market price, provided they have not arisen from transactions other than oil sales. From a schedule on the statement we learn that this producer's share of the production of his wells

is 284 barrels a day. At \$1.60 per barrel, the approximate price at statement date, fifteen days' production would be represented by only \$6800 in receivables. Therefore, it is clear that this large amount of receivables could not arise from oil sales. But we are not told what they do represent. Probably they have been taken as part of the purchase price of certain leases or interests in leases which the producer has sold; and if this is true, they may not only not be a quick asset, but they may even be of no value at all unless oil is found or unless the makers are responsible. In any event, the item should be explained.

Note the small amount of oil in storage. Only 1100 barrels valued, at \$1.60 per barrel or \$1760 is so carried. As indicated in our preceding discussion of this business, it is not customary for the producer to store oil, but to run it almost directly from the wells into the gathering pipe lines.

Observe the large amount of the item captioned 'producing leases.' This constitutes the great bulk of the assets, and therefore of the net worth. It is interesting to observe that since the producer has a daily production of 284 barrels, he is placing a value upon it for balance sheet purposes of over \$1100 per barrel. It is not stated as to what constitutes the basis of this valuation — whether the production was purchased at that figure, or whether the market price for such producing leases was at that figure on statement date, or whether the figure represents an attempt to appraise the present value of the estimated future production of the leases. Since the wells are producing on an average of only eight barrels a day, there can hardly be any doubt that the production is settled. Flush producing wells in the same fields generally come in at about 100 barrels a day. Since, therefore, the production is settled, we may look with some confidence upon the stability of the value of this producer's leases; but we may doubt that they are worth at the rate of more than \$1100 per barrel. We have no information as to how long wells in this territory, with about the same amount of production, will continue to produce profitably.

No information is furnished regarding the amount of offset drilling expense which confronts the producer. This is important. Since his production all seems to be settled, however, it may well be that offset drilling on the leases which he now has on a production basis is not a cause of worry. Offset drilling is generally done in the early stages of the development of a lease.

The amount of borrowed money from banks is large, amounting to about \$46,000. It is clear from a brief analysis of the data furnished on the statement that most, if not all, of this money is being used in development work, and since those leases which are now producing

BALANCE SHEET OF R. I. C. AS OF 1-1-24

Cash on hand and in bank	\$3,500	Open accounts, payable.....	\$8,000
Accounts and notes receivable (good).....	36,000	Notes to this bank....	26,000
Oil in storage (1100 bbls.)	1,760	Notes to other banks...	20,000
Pipe, supplies and material in stock not in use	2,000	Notes to others.....	4,000
Investments stocks and bonds.....	11,750	Other current liabilities	1,500
Producing leases (see Schedule A).....	327,500		
QUICK ASSETS.....	\$382,510	CURRENT LIABILITIES	\$59,500
Real estate (house).....	31,500	Net worth.....	406,710
Undeveloped leases (500 a)	26,000		
Machinery and tools....	12,700		
Other assets — diamonds	1,500		
Automobiles.....	6,000		
Furniture and fixtures...	6,000		
TOTAL ASSETS.....	\$466,210	TOTAL LIABILITIES..	\$466,210

SCHEDULE 'A' — OIL PRODUCING LEASES

INTEREST	COUNTY	NUMBER ACRES IN LEASE	NUMBER OF WELLS	COST TO OPERATE PER MONTH	NAME OF COMPANY TAKING OIL	DAILY PRODUCTION	VALUATION
7/8	Wichita	240	26	\$600	I P	80	\$100,000
1/2	Wichita	160	12	250	I P	35	35,000
7/8	Archer	20	1	50	Claton	40	20,000
3/4	Wichita	110	3	350	Claton	105	112,500
1/2	Wichita	25	1	150	Miller	25	25,000
7/8	Limestone	15	5	600	Texas	80	35,000

appear to be on a settled production basis, and therefore are probably not being subjected to further drilling, it would seem that the proceeds of the bank lines are being used to drill in the undeveloped acreage shown on the financial statement. If this money were being borrowed for strictly commercial or short-time purposes, it would not exceed an amount necessary to carry in storage such oil as may not have been sold and to pay the operating expenses incident to raising a fifteen days' production (for at the end of fifteen days, the producer would be paid for that production by the pipe-line company). The cost of raising fifteen days' production on this producer's leases

BALANCE SHEET OF THE 'A' OIL COMPANY AS OF 12-31-22

ASSETS

FIXED ASSETS:

Oil and gas leases.....	\$1,530,553	
Oil well equipment.....	357,824	
Lease equipment.....	159,262	
Furniture and fixtures.....	1,596	
Automobile.....	1,052	\$2,050,290
		<hr/>

CURRENT ASSETS:

Accounts receivable from pipe line companies.....	\$10,042	
Miscellaneous receivables....	5,325	15,368
		<hr/>
Oil in tanks.....	2,317	
Cash.....	6,002	23,687
		<hr/>
Escrow deposit.....		830
		<hr/>
		\$2,074,808

LIABILITIES

CAPITAL LIABILITIES:

Capital stock (outstanding)..<	\$1,479,220	
Less deficit.....	484,325	\$994,894
		<hr/>

CURRENT LIABILITIES:

Accounts payable to trade creditors.....	\$53,752	
Due officers and employees..	1,689	
Miscellaneous payables.....	2,712	58,153
		<hr/>
Accrued taxes.....	3,178	
Notes payable.....	12,212	
Bank overdraft.....	1,788	75,333
		<hr/>

RESERVES:

Depletion oil reserve.....	629,851	
Depreciation on — Well equipment.....	257,871	
Lease equipment.....	116,857	1,004,580
		<hr/>
		\$2,074,808

APPENDIX

349

INCOME ACCOUNT OF THE 'A' OIL COMPANY FROM
1-1-22 TO 12-31-22

INCOME:

Income from oil production.....	\$246,028
Other operating income.....	27,389
GROSS OPERATING INCOME.....	\$273,418

EXPENSES:

Production.....	62,814
Administrative.....	36,053
	<u>\$98,868</u>

NET OPERATING INCOME BEFORE DEDUCTING DEPRECIATION AND DEPLETION.....	\$174,550
----------------------------------------------------------------------------------	------------------

DEPRECIATION:

Well equipment.....	\$56,514
Lease equipment.....	18,589

DEPLETION.....	186,410
	<u>\$261,514</u>

NET OPERATING LOSS.....	\$86,964 (Red)
--------------------------------	-----------------------

OTHER EXPENSES AND LOSSES:

Development expense.....	\$25,168
Lease and land department.....	1,643
Depreciation — Nonproductive leases	
Well equipment.....	7,976
Lease equipment.....	729
Losses on sales and transfers of equipment.....	6,696
Bonuses and commissions.....	325
Lease rentals.....	583
Interest paid.....	1,722
Lease charged off.....	215
Miscellaneous.....	201
	<u>\$45,262</u>

\$132,226 (Red)

OTHER INCOME:

Interest received.....	\$646
D. C. Adams contract.....	1,040
Sale of old tubing.....	50
	<u>\$1,736</u>

LOSS FOR YEAR.....	\$130,489 (Red)
---------------------------	------------------------

may be calculated from the data furnished, and will be found to be about \$1000. The cost of producing the oil which the operator is carrying on hand will be found to be about \$270. Therefore, he should not borrow from banks more than about \$1300, if we leave out of consideration his development work. This shows quite clearly how the producer is using his bank lines.

It is interesting to observe, however, that he is keeping his borrowed money reasonably within the power of his present settled production to care for. If the producer should drop his development work at this point, his present settled production would, after meeting all operating expenses (\$68 per day), yield enough income to entirely pay off the bank lines within 120 days.

With a little supplementary information in line with what has been pointed out above, this producer would seem to be entitled to some credit from his bank. His production is apparently settled. Unless the moral risk is prime, however, and unless the producer's operations are skillful and conservative, it would be the part of wisdom to take an assignment on his oil runs.

On pages 348 and 349 will be found the balance sheet and income account of the 'A' Oil Company. The bulk of the assets of this company consist of oil and gas leases valued at \$1,530,000 and sundry oil well and lease equipment valued together at about \$517,000. The valuation placed upon the oil and gas leases may include a large amount of appreciation, if we may judge from the fact that a heavy depletion reserve is carried among the liabilities. In other words, this company has apparently availed itself of the privilege granted by the income tax authorities of estimating and placing a value upon the probable future recoverable reserves of oil and gas in its leases, and is charging out of its income each year an amount to take care of the depletion of the reserves. This, according to the regulations of the tax authorities, might be considered a return of capital and a deduction from revenues before calculating taxable income, but we are not informed as to what the appreciation in the leases amounts to, nor are we provided with any data concerning the number of wells the company has and the production from each well. In short, we are at a loss to determine the reasonableness of the valuation placed upon the leases.

Observe the small amount of quick assets. This is normal on account of the short terms on which the crude oil is sold and the fact that the company does not carry much oil in storage. Attention is called to the large impairment in capital, but when we consider the income account and the large reserve for depletion, it will be seen that in a sense this impairment has arisen through heavy charges for depletion. While attention has already been directed to the large

amount invested in oil well and lease equipment, it should be noted that these items are very largely offset by heavy reserves for depreciation. This is proper, for such assets depreciate rapidly.

Current liabilities are substantially in excess of quick assets, but this is occasioned by the fact that the company owes nearly \$54,000 to trade creditors. It would seem that this amount must be owing for oil well and lease equipment.

We find from the income account that the income of the company amounted during the year to \$246,000, with total production and administrative expenses of \$99,000. After adding other operating income, we find that the net operating income before deducting depreciation and depletion amounted to about \$175,000. We know that this company would charge off as much for depreciation and depletion as possible in order to avoid taxation. Depreciation charges during the year amounted to about \$75,000, so that the net operating income after depreciation amounted to about \$100,000. Charges for depletion totaled \$186,000 and left the company with a net operating loss of \$87,000. The point to be stressed here is the fact that a loss resulting from depletion charges is not to be interpreted in the same light as an ordinary operating loss in other lines of business, for the reason that unless the company actually paid cash or its equivalent for the leases in an amount equal to their appreciated value, the depletion charge does not represent an expense or loss to the company at all, but simply a writing down again of a value that had been placed gratuitously in the balance sheet in the first place. After allowing for certain other expenses incurred principally for development purposes, we can see that, if the depletion charge be omitted, the company operated at a profit.

Therefore, we are in a position to understand the heavy impairment in capital. In all probability it has been occasioned by the fact that depletion charges each year have caused a deficit in earnings. One of the principal criticisms of the manner in which the company renders its balance sheet is that the appreciation of leases (which we all along have assumed to exist) is not earmarked in the net worth accounts. The only net worth account shown is capital stock; consequently any deficit in earnings, whether caused by depletion or otherwise, would have to be shown as an impairment of capital.

It should be stated here that if the company actually paid cash for the leases in the amount at which they are carried in the statement, that is, if there is no appreciation of values through mere appraisals and book entries, then the impairment in capital is very real indeed, and the deficit in the last year's operations arising from depletion is also very real.

The oil producer and refiner (the refiner): Comparative balance

sheets of the 'X' Refining Company indicate that the company did not have a successful year in 1923. In the latter part of the year, it placed a heavy mortgage on its plant. For the purpose of analyzing and determining, as well as we can, what the outcome of the company's operations was for the year, we may ignore temporarily the bond issue and its offsetting items of bond discount and expense, sinking fund, and unused cash proceeds from the sale of the issue. We find the following changes to have taken place during the year:

Quick assets decreased.....	\$13,000
Current liabilities increased.....	51,000
Fixed assets increased.....	45,000
Surplus and reserve decreased.....	24,000

BALANCE SHEET OF THE 'X' REFINING COMPANY

	12-31-22	12-31-23
Cash in banks.....	\$53,582	\$41,425
Cash (from bond issue).....		87,355
Accounts receivable.....	8,468	19,299
Inventory of crude oil.....	18,565	5,609
Inventory refined products.....	6,950	7,459
QUICK ASSETS.....	\$87,565	\$161,147
Prepayments.....	4,090	2,998
Sinking fund with Trustee.....		12,845
Bond discount and expense.....		10,722
Refinery.....	165,167	209,711
Pipe line.....	63,781	63,553
Other assets.....	12,857	12,982
TOTAL ASSETS.....	\$333,460	\$473,958
Accounts payable.....	\$23,840	\$25,713
Notes payable.....		47,500
Accrued items.....	2,701	4,166
CURRENT LIABILITIES.....	\$26,541	\$77,379
Reserve for depreciation.....	53,795	87,843
Capital stock.....	250,000	250,000
Surplus.....	3,124	55,014*(Red)
6% 2-year bonds, due 1925.....		113,750†
TOTAL LIABILITIES.....	\$333,460	\$473,958

* Before tax deductions for the current year, but after tax deductions for the preceding year.

† Original issue \$130,000 — repayable in twenty-four monthly installments.

Thus the company not only suffered a loss in its operations sufficient to create a substantial impairment of capital, but also used a large amount of its liquid capital for the purpose of plant expansion. This practice is usually not to be approved, even in the case of concerns capable of operating at a profit; it is to be especially censured in the case of a company which is operating at a loss and without a surplus to absorb the loss.

By issuing the bonds in the latter part of the year, however, and holding the cash received from the sale in the quick assets, the company was able to restore, at least temporarily, its working capital position. Cash constitutes the bulk of the present quick assets. The banker should ask what has been done or will be done with it.

Attention is called to the bond issue. A number of questions arise concerning it. In the first place, the bonds have less than two years to run. They are a very heavy encumbrance on the fixed assets. The company is having to pay dearly for the money. Aside from the coupon rate of 6 per cent interest which the bonds bear, the company has already paid discount and expenses amounting to nearly \$11,000. Altogether, the money is costing at the annual rate of about 15 per cent. The underwriters of the bond issue drove a hard bargain, and they did this because the company had to have money.

As the situation now stands, the creditors of the company have nearly as much invested in the business as the owners. The risk is not attractive.

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